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THE UNIVERSITY OF ALBERTA

THE INFLUENCE OF THE INDIVIDUAL PROGRAM PLAN ON DEVELOPMENTALLY DISABLED ADULT'S PROGRESS IN RESIDENTIAL TRAINING PROGRAMS

BY

ANNE MARIE HARRIS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF HEALTH SERVICES ADMINISTRATION

DEPARTMENT OF HEALTH SERVICES ADMINISTRATION AND COMMUNITY MEDICINE

EDMONTON, ALBERTA

SPRING, 1988.

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ISBN 0-315-42699-3

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TITLE OF THESIS: The Influence of the Individual Program Plan on Developmentally Disabled Adult's Progress in Residential Training Programs.

DEGREE: Masters of Health Services Administration.

YEAR THIS DEGREE GRANTED: 1988.

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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled The Influence of the Individual Program Plan on Developmentally Disabled Adult's Progress in Residential Training Programs submitted by Anne-Marie Harris in partial fulfillment of the requirements for the degree of Master in Health Services Administration.

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Date: December 16/87

ABSTRACT

The Individual Program Plan has been described as a written plan of intervention (based on instructional objectives) for disabled persons with regards to their improved development. For the past several years the use of the IPP as a habilitation tool for developmentally disabled people has been accepted practice in Canada.

The purpose of this study was to determine the utility of the IPP in assisting developmentally disabled adults in making progress and/or moving towards lesser restrictive living alternatives within residential training programs.

Content valid criteria were established by a panel of experts to determine the necessary components of a complete IPP. A convenience sample of IPPs were then rated and related to the respective clients' progress and movement over time in the represented residential programs. The sample for this study included 73 adults, 18 to 45 years old, at level of functioning 1 and 2 (i.e., mildly and moderately mentally handicapped), and residing in one of three non-profit residential training programs in the city of Edmonton, Alberta. A stepwise multiple regression model was utilized to statistically control for

potentially confounding covariates (i.e., client age, sex, level of functioning, time in current and previous services).

The results suggested that the IPP as a whole might well have had some influence in affecting clients' progress and movement. In addition, particular criteria of the IPP were found to be more related to client progress and movement than others. Key criteria included: the presence of a progress report; inclusion of objectives with 'to' 'from' statements, and, timelines for completion; the involvement of the client, his/her parent(s) and an interdisciplinary team.

Given these results, the continued use of IPP's appeared justified, as well as further research into the determinants of quality IPP's.

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CHAPTER ONE

The developmentally disabled (or individuals diagnosed as having mental retardation) are a group of people who have recently (within the past 20 years) returned to the community, having lived in segregated or institutional environments. This movement away from institutional placement has provided impetus for the development of numerous services and treatment technologies. Today, concepts such as providing individualized treatment in the least restrictive environment are central to the highest quality of service for the developmentally disabled.

Many of the developments are based on philosophical beliefs such as the principle of normalization which suggests disabled individuals should have the opportunity to experience the same rhythm of life as any other citizen. As a result, many individuals who previously would have been institutionalized are now living in the community with their parents, in group home settings or independently. The ultimate goal in this field is to assist the individual in becoming more independent with respect to his/her living situation as well as to employment. The intent of this study was to examine a

particular treatment method in terms of its degree of positive impact for ensuring that these individuals were able to become more independent.

Statement of the Problem

The movement towards the de-institutionalization of the developmentally disabled has resulted in the establishment of numerous services which provide training and support for this group. Examples of these services included: group homes; foster homes; and, vocational facilities (Moreau, Novak & Sigelman, 1980). The challenge according to Lensink (1980) was to ensure that the implementation of programs and services are able to meet the needs of the consumers of these services. To ensure that individual needs are met, Lensink suggested that any organization involved with service provision for the developmentally disabled should have a continually evolving system. Ideally, the individual would move from a highly structured environment such as a group home (where intensive independence training would take place) to a less structured and more normalized setting in which the individual would not only continue to receive professional support, but also would engage in the same activities of daily living as those of the average citizen.

Halpern, Close and Nelson (1986) described the ideal service system for semi-independent living programs for developmentally disabled adults as having well defined input, process and output dimensions. These dimensions would delineate the following: how and who may enter into a service; a process of developing programs based on a match to skill and match to need of the client; and, finally an assurance that clients receiving service are experiencing an optimum quality of life.

A continuum of residential services generally contained a full range of housing options in which a developmentally disabled person would ideally progress towards independent living (Branston, 1980). In Edmonton, although no official government driven continuum has been created, a continuum of most to least restrictive housing or residential training components exists (see appendix A for detail).

Along with the development of various structures or facilities, there has been an improvement in methods to teach skills for independence. A widely adopted process to train disabled individuals in becoming more independent is the use of the Individual Program Plan (IPP). Based on instructional objectives as developed by Mager (1975) and behavioral principles (Smith & Snell, 1978), the use of the IPP has been purported to assist in identifying and

systematically teaching the disabled person those skills necessary to become independent (Lent, 1978).

The logic in using a systematic written plan in assisting disabled people is obvious. Generally it is agreed that with the use of the IPP, developmentally disabled individuals learn and move into environments which would allow more independence. However, given the paucity of research in this arena, Maher (1980) and Page , Christina and Iwata (1981) have suggested that further research is required in order to determine the true effect on the client by IPP usage.

Generally, increased independence for this group of individuals has been an ultimate goal within this field. The benefits to the individual (in terms of increased self-esteem) and the potential cost/benefit to society as a whole (in terms reduced burden on social service costs and returns in the form of taxes and contributions from the individual) can be considered as motivators for conducting a study in this arena.

A pilot study was conducted between January and March 1986 to examine the question of whether the use of IPPs has any positive impact on client movement within a residential training program. Although statistical significance was not attained in the study, it was discovered that developmentally disabled individuals with

higher quality IPPs moved directionally into less restrictive environments at faster rates than those with lower quality IPPs. These results along with the suggestions from other research provided the impetus for further research into this subject area.

Objectives

In order to examine the research question "Does the use of the IPP have no effect on client progress or movement within a residential training system?" a series of objectives were delineated and pursued;

1. to obtain cooperation and data access from at least three Edmonton-based non-profit agencies providing residential training services to developmentally disabled persons;

2. to establish the face validity of a developed IPP questionnaire (Appendix B) by requesting professionals in the field working with the developmentally disabled to complete and provide comments regarding the adequacy and relevancy of the content questionnaire;

3. to establish the content validity of the above questionnaire by seeking the assistance from a panel of experts in this field (Community Colleges, Universities, and practioners in the field) in order to determine more assuredly which elements of an IPP were indeed necessary in order to have an adequately completed IPP;

4. to enhance the internal validity of the measured effect of IPP's, by undertaking an extensive literature search with respect to IPPs and other factors which may influence individual client progress, and subsequently incorporating these and other factors as predictive covariates of the ability for independent living; and

5. to determine the predictive validity of varying IPPs (as measured by the above face and content validated criteria) in relation to clients with varying independent living conditions, using as predictive covariates those factors which authors have hypothesized as influential on client progress to independent living.

To achieve the above objectives, personal client files were examined in order to measure the quality of their IPP, the client age, level of functioning, the amount of time that the client had been involved with his/her current organization, and the time the client had been involved with previous organizations or programs. Efforts were made to ensure the confidentiality of all infomation gathered was respected (chapter 3 provides further detail with respect to ethical handling of data).

Limitations

Due to the restrictions of this study, there were numerous factors which could not be accounted for in

attempting to accurately determine a developmentally disabled persons' progress. Limitations specific to this study were as follows:

1. The sample was limited to individuals between the ages of 18 and 45 years involved with three organizations in the city of Edmonton. Only those people who consented or whose private guardian consented to be involved in the study were included. As a result, the sample cannot be considered a random selection of this population and thus may not be generalizable to a much larger population of developmentally disabled persons.

2. The data collected for this research were drawn from client personal files held by the organizations. The information collected from these files was only assumed to be accurate and complete; verification measures of this assumption were not undertaken.

3. The retrospective design of the study resulted in the inability to accurately measure the influence an employee working with the individual had on the client and his/her acquisition of skills or general progress towards independent living. Though a global measure of present staff attitude towards the use of the IPP was undertaken normal staff turnover within these organizations dictated

that the attitudes of former employees who completed some of the measured IPP's were not accessible.

4. Other influences outside of the scope of this research could have also included: philosophy of the organization, and, how this philosophy was provided to and interpreted by the employee; the type and emphasis on staff training specific to the use of the IPP; and, the stage of development of the organization (e.g., one of the organizations included in this study had just begun actively using the IPP process for the first time).

In addition, potential confounding factors outside of the realm of this study could have included the positive or negative influence that a client's parent, a vocational worker, a social worker and/or a volunteer may have had on an individual's progress or movement into less restrictive environments. Without direct observation or psychological testing over a longer term than that taken for this study, there was no way the true impact of these confounding factors could be determined.

Definition of Terms

The following definitions are provided to clarify the terms utilized in this study:

1. DEVELOPMENTALLY DISABLED/ MENTALLY HANDICAPPED/ DISABLED PERSON: These terms are utilized interchangeably to describe the sample of individuals with this specific diagnosis and who were involved in this study. Chapter 2 (p. 13) provides the current definition for this disability.

2. CLIENT/INDIVIDUAL: Developmentally disabled people who are receiving independence training from the organizations.

3. AGENCY/ORGANIZATION: The larger structure which has been established to serve the clients involved in this study.

4. PROGRAM: A component of the larger organization or agency providing training or support to clients.

5. IPP: Individual Program Plan defined specifically in chapter 2 (p. 23).

6. PROGRESS: Indicators of client achievement of objectives outlined in his/her IPP (that is, he/she has learned required skills for independence)

7. MOVEMENT: Graduation from one program to another; physical movement into another program which provided different and perhaps more advanced training.

8. LEAST RESTRICTIVE ALTERNATIVE: Any environment which allowed the client to be more independent in that he/she had less professional input and used more of his/her daily living skills (e.g. cooking, banking, budgeting, household chores, leisure activities, etc.).

9. RESIDENTIAL TRAINING SYSTEM: An organization whose purpose was to teach clients those skills necessary in becoming independent with respect to home living skills. The organization may have consisted of group homes, apartment buildings and support (non-facility based) programs.

10. CRITERIA ITEMS: Each of 16 items used to score the quality of the IPP delineated in Appendix G.

Format of the Thesis

This report is organized into five chapters, the first of which comprises the introduction, the second consists of a selective review of the literature specific

to the developmentally disabled and the use of IPPs. The third chapter provides a description of the methods used for this study. Chapter 4 describes the results of the study while chapter 5 reviews the findings, (taking into consideration the limitations) and provides conclusions and recommendations for further study.

CHAPTER TWO

A SELECTIVE LITERATURE REVIEW

This chapter will present a review of selective literature regarding the developmentally disabled. Specifically, a brief review of the history of services provided to individuals labelled as mentally retarded, a description of the population with this disability and the methods utilized to assist in their development will be offered. A description of the components and issues surrounding the use of the Individual Program Plan (IPP) also will be delineated. Finally, a brief examination of previously conducted research regarding those factors which can have influence on this populations' progress will be provided.

Description and History

The terminology and definitions utilized to describe or label individuals with a diagnosis of retardation has evolved over the years. Until 1959 the criteria for diagnosis emphasized what the mentally handicapped individual could not do (Mittler, 1979). The use of intelligence testing also has been a means of defining the presence of retardation. While these tests are reasonably reliable and provide an objective means for diagnosis, their limitations rest in the potential for cultural bias which may lead to misdiagnosis and an inability to utilize

these tools for predictive purposes (Mittler, 1979).

A more recent and functional description of mental retardation or developmental disability (as it is referred to in recent years) is offered by the American Association on Mental Deficiency. This disability if considered to be:

> "a severe, chronic disability of a person which : is attributable to a mental or physical impairment or a combination of mental and physical impairments; is manifested before the person attains the age of 21; is likely to continue indefinitely; results in substantial functional limitation in three or more of the following areas of major life activities - i) self-care ii) receptive and expressive language iii)learning iv) mobility v) self-direction vi) capacity for independent living and vii) economic self-sufficiency; reflects the person's need for a combination and sequence of special, interdisciplinary or generic care or other services which are individually planned or coordinated" (summers, 1981,259.).

Historically, references to the developmentally disabled have dated as far back as 1500 B.C. in works by Greek authors. The spartans practiced active euthanasia and later the Romans used these individuals as objects of display to amuse visitors. During the reign of Edward I in England an important distinction was first made between 'fools' (developmentally disabled) and 'lunatics' (mentally ill). While Martin Luther believed that the disabled population was 'satanic', the Reformation brought about the belief that the mentally retarded were Divine Gifts, 'Les Enfants du Bon Dieu' (Sheerenberger, 1983).

During the 18th and 19th Centuries, notable individuals affected the development of services to the

developmentally disabled (Plog & Santamour, 1980; Shreerenberger, 1983): Itard (training of a feral child); Guggerbuhl (effort to cure with mountain air, intensive physical activity and diet); Seguin (founder of the first special education school and later the founder of the first professional association which became known as the American Association on Mental Deficiency); Howe (established the first State supported institution in Boston initially for the deaf and blind and eventually housed a school for the mentally handicapped); Binet and Simon (developed intelligence quotients which gave educators an index for diagnosis) (Plog & Santamour, 1980; Sheerenberger, 1983).

By the early 20th Century there were special classes in approximately 220 cities in the U.S.A. and the first educational system to train educators of the mentally handicapped was established (Plog & Santamour, 1980). After World War II there was a resurgence of concern for the developmentally disabled (following a gap in interest during the Great Depression). This post World War II resurgence of interest was generated by parents who fought for the right to an education for their offspring, and, eventually led to the development of special education programs. In addition, the efforts of parent groups provided the impetus for the improvement of institutional

care toward positive habilitation practices instead of the custodial treatment provided traditionally within these environments.

According to several authors (Bradley, 1978; Luckey and Neman, 1975; Emmel,1980; Flynn & Nitsch, 1980; Savage, 1983) more recent events have served as the major impetus towards de-institutionalization and improved care for developmentally disabled persons. Briefly, these events included: the 1961 J.F. Kennedy appointment of a panel to prepare a national plan to combat mental retardation; the advent of civil rights movements; the 1971 U.N. Declaration on the Rights of Mentally Retarded Persons; the 1972 Wyatt vs. Stickney case which established that mentally hadicapped people have a constitutional right to habilitation; and notably the acceptance of the principle of normalization as authored by Wolfensberger in 1972.

The principle of normalization has significantly changed the manner in which services have been provided to the developmentally disabled (Novak & Heal, 1980; Flynn & Nitsch, 1980). This principle was first introduced by Bank-Mikkelson in Denmark, written in English by Nirje of Sweden, and subsequently Americanized by Wolfensberger (Wolfensberger, 1980). Normalization is defined as: "making available to the developmentally disabled patterns and conditions of everyday life which are as close as

possible to the norms and patterns of the mainstream of society" (Nirje,1969,p.363).

Prior to the advent of this principle, many mentally handicapped people lived in institutions segregated from their home communities and family (Kysela, Anderson, & Marfo, 1981). Heal (1980) suggested that the basic concept underlying the principle of normalization is that of egalitarianism, that is, the elimination of discrimination towards the handicapped.

Opponents of the principle suggested that it offers the wrong means for the rights for the developmentally disabled (Throne, 1975). Throne suggested that normalization ignores the fact that mentally handicapped individuals do not respond to normative practices, and that specialized services and practices must be a priority if the right of the individual to develop is to be upheld (Throne, 1975). Wolfensberger (1980) responded to Throne's claim by clarifying that normalization means 'valued'. In essence, the principle suggests that equal treatment and the opportunity to engage in activities similar to the average citizen is the right of the developmentally disabled person.

Numerous transitions in service provision have occured for the developmentally disabled over the years. Many of these developments have been influenced by belief

systems consistent with the principle of normalization.

In addition, legal precedent and legislative acts have promoted improvements in services. Public Law 94-142 in the United States, which ensures that all handicapped children will receive education and that this education will be individualized, has resulted in indirect pressure for change in Canada (Kysela et al, 1981). Canadian litigation such as the Carriere case has ensured that (at least in the province of Alberta) handicapped children will receive appropriate education (Kysela et al, 1981).

U.S.A. litigation such as the Wyatt vs Stickney case and the Pennhurst case established that the developmentally disabled have a legal right to habilitation in the least restrictive environments (Flynn & Nitsch, 1980; Griffith, 1985).

On humanitarian grounds alone, few would argue against better services and the de-institutionalization of the handicapped. Support for de-institutionalization is garnered by demonstrating the detrimental effects on the individual's well being while residing in an institution (Ferlinger & Boyd, 1980; Kurtz & Wolfensberger, 1969; Dennis,1960; and Devellis, 1977). One example of the detrimental effects include increased mortality with decrease in age at admission (Kurtz & Wolfensberger,1969). However, Crawford, Aiello and Thompson (1979) and Zigler

and Balla (1977) suggested that there is a lack of definitive data regarding institutional care and that this dirth of information does not warrant the formulation of the pro-deinstitutionalization policies which exist. A more recent argument in favour of de-institutionalization came from O'Neil, Brown, Gordon, and Schonhorn (1985) who demonstrated that the quality of life is improved for even the most severely handicapped when residing in smaller home-like facilities as opposed to in the larger institutions.

Other arguments which have served to promote de-institutionalization are based on the fact that some authors have demonstrated that institutions are not cost effective (Evans, 1983; Intagliata, Wilder & Cowley, 1979). Templeton, Gage and Fredericks (1982) showed that, in the short term, institutions are much less expensive than a group home, however in the longer term, savings can be realized if individuals are placed in smaller home-like facilities. It is perhaps this latter fact that will help ensure that the de-instituionalization trend will continue.

The above discussion has provided a definition of developmental disabilities, a brief history with respect to service trends for this population and a description of the more recent trend to de-institutionalize these individuals. The succeeding pages will examine the

technology that is utilized to assist developmentally disabled people in smaller residential facilites.

Technology

The movement towards de-institutionalization, influenced by the principle of normalization, has allowed many mentally handicapped individual to return to less restrictive environments in their home communities (Bruininks, Meyers, Sigford & Lakin, 1981). Technological advances also have been evidenced by demonstrating that with the use of appropriate methods developmental gains can be achieved with any level of mental retardation including the most profoundly impaired (Gold, 1968; Heal, 1980; Rusch, 1979; Appoloni, 1980).

According to Bates and Wehman (1978) behaviour management procedures are critical for training the mentally handicapped. The methodology of behaviour modification grew from early experiments with laboratory animals into well recognized techniques for use with developmentally disabled in the school systems, teaching pre-vocational and vocational skills, and, daily living skills (Smith & Snell, 1978). Historically, the first documented account of the use of behaviour modification with the mentally handicapped was Itard's work with "Victor" in the early 1800's. Itard used behavioural principles to modify this individual's behaviour so that he could become more acceptable and manageable within

society (Smith & Snell, 1978). Presently, the technology which is commonly used to teach developmentally disabled individuals is fundamentally based on operant conditioning.

Behaviorism was founded in 1914 by J.B. Watson but is most associated with the work of B.F. Skinner (Ingalls, 1978). According to Ingalls (1978) only observable behaviour can be appropriate material for scientific psychology and that, because feelings and intelligence cannot be adequately defined or measured, the latter two belong in the realm of philosophy. Ingalls further stated that behaviour can be attributed to environmental causes and that most human behaviour is learned. Most learning can be explained through operant conditioning, this being the underlying process behind behaviour modification. Ingalls (1978) suggested that the technological arm of operant conditioning involves reinforcement of correct responses immediately after they occur so that the likelihood of these responses occuring again will increase.

According to Karen, Eisner, and Endres (1975) behaviour modification can be characterized by the following: use of behavioural principles; objective assessment; individualized behavioural prescriptions; and, revisions of procedures when necessary. Katz, Goldberg,

and Shurka (1977) and Roos and Oliver (1969) demonstrated that with the use of behavioural techniques self-help and social skills in severely disabled people can be significantly improved. In a study conducted by Matson, Marchetti and Adkin (1980) the same procedures were demonstrated to improve client self-help skills. Matson et al (1980) added that, because the individuals were actually involved in their planning process and the actual implementation of their treatment, the use of individualized behavioural techniques were in fact more ethical. In another study conducted by Lent, Leblanc and Spradin (1967) behaviourism is offered as the habilitation technique for handicapped persons.

The components underlining the use of behaviour modification strategies (Tawney, Middleton & Cegelka 1973) included:

1. behaviour which needs modifying or the behaviours which are targetted for change should be specified in observable terms;

2. environments should be arranged so that positive consequences can be provided immediately and consistently following appropriate behaviours; and,

3. behaviour followed by positive reinforcement will increase in frequency.

Teachers have utilized behavioural principles in

the form of behavioural objectives to plan individual curricula since the 1960's (Smith & Snell, 1978). Behavioural objectives are clear goal statements which are worded in such a fashion that it is easy to agree on the description of the behaviour. Mager (1975) suggested that such objectives can then be used to:

1. ensure that the instructor understands and is consistent in setting learning goals;

2. evaluate if the objective has been accomplished (part of the process is to establish criteria from which assessment of success can be made);and,

3. provide learners with the means to organize their efforts towards the accomplishment of the objective(s).

To ensure these benefits can occur Mager also suggested that the following elements for objectives must be present:

1. the PERFORMANCE - The specific observable behaviour which the learner must be able to do, should be delineated;
2. the CRITERION - A description of how well the behaviour must be performed by the learner;
3. the CONDITIONS - A delineation specifying under what operational conditions one expects the learner to be able to execute the cited level of performance.

In 1975 Public Law 94-142 in the United States established that Individual Education Programs (IEP) must be developed for each handicapped child involved in the education system (Clay & Stewart, 1980).

In Alberta, the Department of Social Services also requires that residential training agencies providing services to developmentally disabled individuals must develop Individual Program Plans (IPP) for each consumer of these services (ASSCH, Residential Services Program, 1983). The essential components of the IPP and IEP are in the form of instructional objectives. The IEP and IPP are in essence the same document, but used in different environments (i.e., respectively, school system as opposed to a residential training system).

The following provides a description of the IPP and the rationale for its use with the handicapped.

Individual Program Plans (IPP)

The 1975 Public Law 94-142 described an Individual Education Plan (IEP) as a written statement which is specially developed to meet the unique needs of handicapped children in the school system. The IEP must be developed during a meeting which includes representation from the local education agency, the teacher, the parent or guardian and, whenever appropriate, the handicapped child (Clay & Stewart, 1980).

In Canada, an accepted description of the IEP or the IPP (as it is referred to when being utilized with adults) is that it is a written plan of intervention that is developed with the participation of all concerned. It specifies objectives and goals, is to be modified at frequent intervals, identifies a continuum of development, and outlines projected and progressive steps (Kovacs,1980). Stephens and Yu (1985) noted that legislation similar to that in the United States does not exist in Canada, however, the use of the IPP is an accepted practice even though IPP systems vary from province to province.

Legislation, legal precedent and government standards have been the prime impetus for the use of the IPP. The rationale for its use also included the fact that it enables the consumer to participate in decision making. The emphasis of an IPP is developmental and progressive in nature. In addition, this type of plan clearly delineated expectations for which the consumer can strive to achieve. The benefits for staff members who are assisting consumers in achieving goals included the outlining of a direction and purpose of intervention, provision of a record of achievement and help in the assignment of responsibilty (Kovacs, 1980). According to Turnbull, Strickland and Hammer (1978) the IEP will

significantly assist educators in making sound judgements regarding implementation of educational plans.

The next section of this chapter will provide a summary of the components that the literature describes as being essential in the development of IPPs.

Components of the IPP

There exist numerous variations and differing emphases with respect to the components of an IPP. The following will provide a description of the common elements that various authors suggested as being essential in the development of this document.

According to numerous authors, the following elements are considered to be important for inclusion within the IPP. The IPP:

-is based on assessments -formal, functional, ecological (Maher, 1980; Kaye & Aserlind 1973; Clay & Stewart, 1980; Crosby, 1976; Deno & Mirkin 1980);

-ensures that the client is involved in the process (Anderson, Barner & Larsen 1978; Clay & Stewart, 1980; Kovacs, 1980);

-identifies long term goals (Page et al 1981; Maher, 1980; Turnbull et al, 1978; Throne, 1977; Tymitz, 1981; Crosby, 1976; Deno et al, 1980; Kaye, 1973; Clay & Stewart, 1980);

-identifies short term objectives and teaching plans

(Page et al, 1981; Maher, 1980; Turnbull et al, 1978; Throne,1977; Tymitz, 1981; Crosby, 1976; Kovacs, 1980; Ballard & Christie, 1983);

-is written in observable and measurable terms (Ballard et al, 1983, Kovacs, 1980; Clay & Stewart, 1980);

-focuses on preparation for subsequent environments (Kovacs, 1980);

-focuses on strengths and needs (Kovacs & McGowan-Green, 1984; Kovacs, 1980);

-has an established prioritization method (such as, health and safety as a first priority, areas of greatest strength as a second priority and, finally, areas of greatest need) (Crosby, 1976; Deno et al, 1980; Kovacs, 1980);

-includes timelines, criteria for achievement and identifies persons responsible for assisting the client in attaining goals and objectives (Clay & Stewart, 1980; Kovacs, 1980).

A formal assessment has proven to be of diagnostic value (e.g., I.Q. tests) whereas a functional assessment consists of objective observation of the client in his/her environment (Kovacs,1980). Schacter, Rice, Cormier, Christensen and James (1978) and Bailey and Helsel-Dewert (1983) suggested that assessments and any form of planning

should be undertaken by an interdisciplinary team which may include parents, medical personnel, social workers, psychologists and habilitation staff. A newer addition to assessments has benn the ecological inventory which is concerned with ensuring that there is an account for the interrelationship or interaction of the client with his/her environment. The ecological inventory lists the current and potential subsequent environments, subenvironments, and the activities which will occur in these subenvironments and finally, the skills which the client is required to perform in these environments (Falvey, 1979).

Schacter et al (1978) described the IPP system as a four step process including;(1)the pre-IPP meeting to arrange for client assessment, (2)an interdisciplinary meeting to first discuss the results of the assessment, (3)discussion of the client's needs in general, and (4)the establishment of priorities for the client's program plan.

In developing the IPP it is essential to ensure that the client participates in the planning process, as it is considered his/her right to have such input into any program plan. In addition, significant others (such as, parents/guardians, residential and vocational representatives) must be part of the interdisciplinary team. These individuals are identified in the plan as

being responsible for assisting the client in achieving the delineated goals and objectives in the IPP (Anderson et al, 1978; Clay & Stewart, 1980).

IPP's should have a strength and needs focus: the assessments should identify in which skill area the client has the greatest assets, that is, those skills which the client possesses and requires the least amount of training to become proficient. The client "needs" are those skill areas in which the client must do the greatest amount of learning or are his/her greatest deficits (Kovacs, 1980; Kovacs et al, 1984). In priorizing which areas which will be taught first, Kovacs (1980) suggested that issues regarding client safety are primary. Safety concerns can include such items as medical (identifying and accessing medical attention for various conditions), medications (using the correct drugs), and, community awareness (street crossing, what to do when lost etc.). Schopler, Reichter and Lansing (1980) added that other relevant priorities including: risk of institutional placement and loss of family environment. If no safety issues exist, then it is suggested that the IPP should focus first on the skill areas in which the client has the greatest strength (e.g., enhancing or expanding the clients' partial skills in cooking - from cooking T.V. dinners to preparing a fresh meat and vegetable meal) (Kovacs, 1980).

The next step of the process is the development of long term goals. These are written as observable and measurable descriptions of the behaviour that is expected to be accomplished within a year or more. A long term goal should identify the desired direction and the resources required to accomplish the goal (Page et al, 1981; Maher, 1980). Short term objectives are observable and measurable intermediate steps which lead to the accomplishment of the long term goal. These objectives identify methods to assist the client, the criteria for success, the conditions under which the behaviour will occur, the teaching time, date of initiation and timelines for completion (Turnbull et al, 1978; Page et al, 1981; Maher, 1980).

Activities must be age appropriate (e.g., adults engaging in adult like activities), and must prepare the client for subsequent environments. That is, the purpose is to assist the client to become increasingly independent so that he/she may make progressive steps towards less restrictive environments (Kovacs, 1980).

In addition, the IPP must be reviewed regularly (at least twice a year). Indications of how this is to be accomplished, who may make changes to the IPP, how successful performance of the skill will be maintained, and the recommended next steps in the process are also

suggested as critical to the IPP process (Clay & Stewart, 1980; Kovacs, 1980). Anderson et al (1978) also recommended that the final document must be free of jargon and easy to read.

Stephens et al (1985) developed measures for evaluating the quality of components within the IPP; briefly these are:

- each proposed objective should include a description of a general area for training, a description of a specific target in behavioural terms for change or maintenance, and a description of a success criterion;
- each objective should have an intervention plan including general information regarding the type of treatment and training setting, the intervention procedures that the trainers will use, as well as the treatment frequency;
- each objective should have an evaluation method specifying data recording methods, as well as an indication of which evaluation procedures should be employed;
- finally the document itself should contain a progress report describing the length of treatment, the present status of the client, and the amount of change due to the intervention.

Kaye et al(1973) suggested that the success of the

IPP depends upon the preparation process of this type of plan. Ignoring any of the elements will result in inadequate products and thus negligible behavioural improvements on the part of the client.

Although the logic for developing an IPP for each client receiving specialized services seems obvious, issues and arguments against their development still exist.

Issues

According to a study conducted by Price and Goodman (1980) the average time in developing an IPP document of this nature is 6.5 hours per client. Price suggested that this amount of time takes away from actual teaching and thus may be detrimental to client progress. Not only is the amount of time an issue, but the cost in terms of manpower has been suggested as being prohibitive (Price et al, 1980).

In 1979, Polivka, Marvin, Brown and Polivka examined the IPPs of 222 subjects and found that out of the 1,369 needed services (identified in the IPP), only 16% of the recorded service needs were not provided. In the same study Polivka et al also found however that close to one half of the total services provided to the clients were not identified in the IPP's and that one half of the subjects involved did not receive the necessary reviews

(twice annually) of their IPP's.

Maher (1980) and Page et al (1981) suggested that insufficient research has been conducted to examine the results of the IPP. In essence, they recommended that further research is required to analyze the relationship between complete IPPs and client progress.

The use of the IPP parallels the development of numerous services which have been for the most part based on and guided by philosophies such as the principle of normalization. The next section will briefly describe some of the empirical research conducted with respect to determinants of client success.

Other Predictive Factors

Success for developmentally disabled individuals is not always clearly defined. Some of the authors reviewed in this section propose that success for individuals rests in the fact that they do not return to institutional settings (Sternlicht, 1978; Jacobson and Schwartz, 1983). Others (Brown & Bayer, 1984) suggested that client ability to cope with community living (that is, the developmentally disabled person becomes intergrated within society) is a sign of success. The research conducted in this area attempts to discover which skills should be taught to clients in order for them to become and remain successful. It appears that skills which can be

considered as measures of success are also described as predictors or indicators of success. The reader is left to assume that the research, which will be described in the following pages, is attempting to provide insight as to which skills require training in order to ensure that the client is ultimately successful (that is, does not return to institutional living or is totally intergrated into society).

Hull and Thompson, (1980) suggested that client satisfaction, severity of behaviour problems, and age are significantly related to successful functioning of clients within the community. Further, these authors suggested that service providers must look at variables such as environmental influences (particularly the location of the client residential facility) as critically influential in determining the degree of client success.

Sutter, Mayeda and Call (1980) examined the success and failure rates of individuals discharged from institutions to community based facilities. This author found that more males than females were unsuccessful. Sutter described the characteristics of this unsuccessful group as being higher functioning ("less retarded"), having a higher level of self-help and social skills, but displaying more maladaptive or socially unacceptable behaviour (eg: rebelliousness). Sutter et al concluded

that the type of behaviour problems displayed by this group must be effectively dealt with prior to discharge from the institutional setting in order to ensure that these clients could be successful in the community. Sternlicht (1978) and Jacobson et al (1983) similarly found that individuals with relatively higher I.Q's were more likely to fail (returned to the institution). Nevertheless client behaviour problems, ranging from rebelliousness to self-injurious and aggressive behaviours, appear to be the key determinants of failure according to numerous authors (Sternlicht, 1978; Jacobson et al, 1983; Sutter et al, 1980; and, Hull et al, 1980).

Crnic and Pynn (1979) identified client motivation, and service provider committment to the client, as major determinants of client success. The impediments to success noted by these authors include anxiety associated with becoming independent and the lack of appropriate social support systems. Schalock, Gadwood and Perry (1984) described the successful client as being slightly younger, possessing acceptable social skills, community utilization skills, and functional academics such as time and money concepts. Intuitively it seems that the Schalock and Sutter studies are contradictory. However, the major difference between these studies rested in the fact that the unsuccessful group in Sutter's study had

behaviour problems which may be the prime reason for the lack of success for these clients. Schalock et al (1984) identified that over time the most important skills that clients should possess to be successful are communication, food preparation, community awareness, care and use of clothing.

According to Webb and McNickle (1980) changes or improvements in functional behaviour by clients were as a result of a higher quality environment. Other authors such as Bjaanes and Butler (1974) Crawford et al (1979) and Schalock et al (1984) also demonstrated that a more positive environment (e.g., smaller home and positive training practices) is the major factor in enhancing the development of skills.

Brown and Bayer (1984) conducted a follow-up study of mentally handicapped adults who had graduated from the Vocational Rehabilitation and Research Institute (VRRI) in Calgary. Their study recommended that agencies should place more emphasis on ensuring that clients acquire those social and leisure time skills which will assist the client in adapting better to his/her environment and thus allow the person to be more successful in the community.

According to Sitkei (1980) the holding of a competitive job before leaving the group home enhances the individual's chance of becoming successful. In addition,

Sitkei suggested that the ability to use public transportation or arrive at a given destination is an important skill for the developmentally disabled to possess in order to be successful.

Kazdin and Matson (1981) argued that with the increased emphasis on adaptive community living skills, successful functioning must be specified in operational terms. They concluded that by using a social validation method (that is, examining the broader social acceptability of intervention programs as compared to "normals" in diverse settings) habilitators will obtain the means to evaluate the efficacy of treatment.

According to Dyer, Schwartz and Luce (1984), Bersani and Heifetz (1985), and McCord (1981) the critical factors in determining success for clients are the staff, the staffing pattern, and the turnover rates within an organization. Bersani et al (1985) and McCord (1981) concurred that high staff turnover rates will impact on client success. Dyer et al (1984) recommended a "pyramid" training method in behaviour management strategies (where staff provide training to other staff). Dyer maintained that this method will ensure that the staff interactions with clients will be more positive and thereby also facilitate client progress. The literature also indicated that the influence of staff and staffing

issues are crucial factors in determining client success (McCord, 1981; Bersani et al, 1985).

Summary and Conclusions

This selective literature review has provided a brief history of the evolution of services for developmentally disabled people. The introduction of the principle of normalization had great impact on these services and in recent years has resulted in the de-institutionalization of several thousand developmentally disabled individuals.

The ultimate goal of de-institutionalized, and other developmentally disabled persons living in community group homes, is independent living. To achieve this goal treatment strategies such as behaviour modification are commonly used. Linked to behaviour modification techniques is the use of the Individual Program Plans (IPP). The use of the IPP system has been common practice in Canada, however, the manner in which IPP's are used and implemented varies from province to province. The reader will notice that the majority of the research specific to the benefits of the IPP are descriptive in nature. As as result, any critique of the reviewed literature is limited to noting the lack of empirical research.

Arguments against the use of the IPP include time and cost factors in preparation (which takes away from

actual individual teaching). In addition, some suggested that there is a lack of empirical data demonstrating that the IPP has had any benefit in enhancing client progress. This latter fact provided impetus for the present study of how IPP's impact on developmentally disabled adults° progression within a residential training system. Some empirical research has indicated that factors apparently influencing the success or failure of specifically de-institutionalized handicapped persons include not only the individuals I.Q., sex and age but also those of the individual's ability to use public transportation, to hold competitive employment, to exhibit adaptive living skills. However, these latter three so called predictors (i.e., adaptive living skills, employment, use of public transportation) are perhaps better described as criteria measures of independent living and as such are not necessarily confounding factors. In addition, other studies have shown that staffing issues related to serving the client's need have also been influential.

The reason underlying progression within a residential system appeared to be multidimensinal in nature. As a result, this particular research must measure and statistically control for factors which have confounding influences on client progress. The particular methods by which this was accomplished will be discussed in chapter 3.

CHAPTER THREE

METHODOLOGY

The ultimate goal of providing service to developmentally disabled individuals is to assist them in becoming increasingly independent in their home, work, and recreational lives. Service providers have developed, refined, and used various methods in order to accomplish the goal of independence for their clients. However, many of these methods are based on philosophy rather than quantifiable research. The Individual Program Plan (IPP) is a treatment method widely adopted within the province of Alberta. As suggested in the literature, (Maher, 1980; Page et al, 1981) further research is required to discover whether the use of the IPP as a treatment method has a positive impact on the consumers of service.

The focus of this research was to determine the relationship between the use of the IPP and client progress and/or client movement towards more independence. Progress (defined on Page 9) was determined to be the achievement of objectives outlined in the client's IPP. Movement (defined on Page 10) was considered to be physical relocation into any other facility for further training. In order to pursue this question, the following objectives were formulated:

1. To determine the necessary elements in a complete IPP by (a) developing an IPP questionnaire (Appendix B), (b) establishing the face validity regarding its content, and, (c) establishing its content validity by use of a panel of experts in this field (Appendix C).

2. To determine the predictive validity of varying IPPs (as measured by the established face and content validated criteria) in relation to improvement in clients' skills (progress) and/or to client movement towards more independence while statistically controlling for other confounding factors on the rate of client progress and/or movement.

General Research Strategy

The general focus for this research was first to develop criteria which would describe necessary content for a complete IPP. Once the criteria were developed and validated, the IPP's were assessed; those IPP's utilized were from the personal files of developmentally disabled individuals who consented (details with respect to assuring confidentiality and ethical handling of data are on Page 41) to be involved in this study (see Appendix D, consent form).

The measurement of the dependent variables <u>client progress</u> (i.e., achievement of objectives) and <u>client movement</u> (to less restrictive environments) was

undertaken through the examination of progress reports and other client file information (e.g., contact notes). Selection of potentially confounding covariates was made in reference to those commonly cited in the literature, as well as those viewed as reasonable (i.e., given the investigator's personal experience). Covariates measured included the age and sex of the client, the client's level of functioning, client's time in current service, as well as in previous service(s).

According to McCord (1981) the staff member who works with the developmentally disabled person can have significant impact on this individuals' acquisition of new skills. Since not all staff members were available for survey in this retrospective analysis of already developed IPP's, statistical control of this confounding influence could not be undertaken in the same manner as those covariates just listed. An attempt was made, however, to account for this factor by developing a questionnaire focusing on existing staff attitudes with respect to the agencies' use of IPPs. The staff survey also gathered information regarding presently available staff length of employment, type of formal education and training in the use of the IPP, and, the system that each agency utilized to implement the IPP, and to supervise staff prior to its implementation (Appendix E).

Participation in this survey of staff members was voluntary and responses were anonymous. While descriptive statistics were used primarily to analyze the results of this survey, one inferential test was conducted specifically to determine if there was any difference in attitude towards the overall usefulness of the IPP among the staff of the three agencies involved in the study. Chapter 4 provides further details with respect to these results.

Sample Selection

Three non-profit agencies providing residential training to developmentally disabled people were involved in the study. Each of these organizations received Alberta Social Services funding to operate their programs (group homes, apartment training programs, independent living services support program). The expectation from Government was that all of these agencies would provide residential training so that the consumers of their service could become more independent.

The sample used in the study included developmentally disabled individuals between the ages of 18 and 45 years who were considered to be at the functioning levels 1 and 2 according to Social Services Standards (see Appendix F). The sample was limited to these parameters because in the initial establishment of

residential programs, Social Services developed funding mechanisms for specific groups of disabled individuals who were considered most likely to become independent. As a result, the agencies included in this study established transitional training programs with the purpose of serving 18 to 45 year old individuals with level 1 and 2 functioning. Omitted were those who were: (a) under the age of 18 (considered a child and likely to be placed in a children's residence); (b) anyone over the age of 45 years (considered an older adult and possibly placed in a residential program with less focus on transition); and, (c) those individuals with functioning levels of 3 and 4 (considered to be more dependent and requiring more intensive training over longer periods of time.

Ethical Considerations

From among those eligible by the above criteria, only those clients who consented (or whose guardian consented) to have their personal files examined were included in the study. Concerns with respect to ethics and the policies of each of the agencies disallowed random selection of clients between age 18 and 45 who were at functioning level 1 and 2. In order to ensure the confidentiality of information, a consent for the release of information was obtained prior to the examination of the clients' personal files. Under the auspices of the

Dependent Adults' Act (Alberta Government Statutes, 1979) some of the individuals were considered to be dependent (unable to give informed consent), and, as a result, their court appointed guardians were requested to provide consent. Those individuals considered to be independent under the Dependent Adults Act consented on their own behalf to release the information from their personal file. To obtain permission to examine files, each of the three agencies forwarded to clients and/or their guardians standardized release of information forms (see Appendix D) along with a covering letter explaining the purpose of the research and assuring confidentiality of information in all instances.

Development of Assessment Criteria for the IPP

Overview

To develop assessment criteria for evaluating the adequacy of the selected IPPs, three steps were followed. The first was to develop an assessment form (Appendix B) and have it's specific items validated by a panel of seven professionals actively involved in developing IPPs in the course of their current employment. Based on the results of the face validation survey, the second step was to edit the instrument and forward the revised version to a panel of ten different experts for content validation. This

panel included two parents active as advocates in the Social Service system, two professionals from the University of Calgary's Rehabilitation Program, one person from the Vocational Rehabilitation and Research Institute (VRRI) in Calgary, and, five rehabilitation professionals who were working in Edmonton social service agencies other than the agencies included in the study.

Based on this input, final revisions were made, on the assumption that the instrument was sufficiently validated for content. The instrument thus included only those items which related to necessary criteria for assessing an IPP's adequacy.

Validation Findings

The seven professionals utilized as face validators suggested that adaptations with respect to the questionnaire were necessary. Specifically, most comments related to goals, objectives and teaching plans. While all agreed that longer term goals and short-term objectives were necessary, these professionals suggested that some of the content of the objectives were best placed in a teaching plan (a teaching plan is similar to an action or treatment plan and is utilized to assist the client in learning those target skills identified in the objectives). In addition, these professionals identified the following items of the instrument in Appendix B as

dubiously useful in an IPP: who should participate in the development of the IPP; the types of assessment tools which should be utilized; the need for medical information; and, how changes could be made to the IPP. Appendix B also provides a summary of the responses and comments regarding the face validity questionnaire.

The second step of this face and content validation process was to revise the instrument (Appendix C) and have this revision reviewed by 10 experts. These experts were asked to consider how necessary the 28 items were (cited in Appendix C) for inclusion in a complete IPP. Ninety percent (90%) (nine of the ten experts) were able to respond to and return their assessment.

The experts had been asked to rate the necessity of IPP item criteria on a 5 point Likert like scale (that is, from never necessary to always necessary). It was decided a priori that any item selected as "always necessary" by at least 80% (8/10) of the experts would be considered as an essential component for inclusion in the IPP document. Employing this criterion, the panel selected 14 out of the 28 (50%) items as "always necessary" components of the IPP.

Opinions of the experts varied particularly in reference to the content of objectives. Comments from this panel suggested that, in their opinion, the

components identified in the survey instrument were necessary, but as content of the action or treatment plans.

The experts did not agree that a type of priorization should occur when developing the IPP. In addition, as it seems that many IPPs were developed as internal documents, the experts did not seem to deem it necessary for the IPP to identify the persons responsible for assisting the client.

Scoring Criteria

Given the panel of experts' suggestions, the finalized version of the instrument to assess IPPs was produced (see Appendix G). The finalized instrument utilized to evaluate the completeness (i.e., items considered necessary for a complete IPP) of the IPP documents included 16 items (Appendix G). Two additional items, over and above the input from the panel of experts, were included in the scoring instrument. Specifically, an item to assess the age appropriateness of treatment (based on the principles of normalization as developped by Wolf Wolfensberger, 1972), and an item to assess the inclusion of a progress report (based on the research of Stephens & Yu, 1985) were included. The arbitrary scoring utilized, consisted of assigning 2 marks for each of the 16 criteria met in an assessed IPP (maximum mark assigned to anyone

IPP being 32). A score of 1 was assigned if the criterion item was not present in the IPP document.

Utilizing the finalized instrument and the noted scoring criteria, a total of 73 client files were avalaible for assessment. In total, 131 IPPs actually were scored as 26 clients had one IPP, 33 clients had two IPPs included in their file, while 13 clients had three IPPs.

In addition to analyzing each of the 16 IPP criterion items of Appendix G, a summated IPP score (referred to as total IPP) was computed.

In order to estimate the reliability of the scoring, 18 IPPs were randomly drawn and re-scored by a second observer (this random selection netted 10 different client files). The second scorer had recent experience in the field of developmental disabilities and was not associated with any of the agencies in the study. Consistency in scoring these 18 IPPs between this investigator and the second scorer ranged from a low of 87.5% to a high of 100% on each assessed IPP, with an overall percentage agreement of 93.53%. Given these results of a re-evaluation of a random selection of 13.7% IPPs, it was concluded that the original scores assigned to the 131 IPPs by this investigator were sufficiently reliable.

Statistical Procedures for IPP Data Analysis

The main objective of analysis was to estimate how the assessed quality of an IPP may have related to client progress or movement in residential training programs provided the previously noted confounding influences were statistically controlled. To assess this, a stepwise multiple regression model was utilized to investigate first, the effect of several covariate variables on each of the dependent variables of progress and movement, after which the remaining, unaccounted for variance was related to various IPP scored criteria.

The key related issues for utilizing the stepwise multiple regression model were as follows. This model allowed:

i)not only some inferential estimates to be performed but also a simultaneous analysis of each dependent variable (progress and movement) in relationship to multiple independent variables (i.e., total IPP score, each of the 16 IPP criteria items) and thereby estimated relative arithmetic importance among the independent variables;

ii) an <u>a priori</u> control for potential spurious or confounding influences (i.e.,covariates such as, age, sex, level of functioning, time in current and previous services); and,

iii) given these noted advantages, attained some progresss towards the validity goal of attempting to determine the probable true impact of the IPP or its components in a non-randomized research environment.

In order to perform the stepwise multiple regression equations the data were first sorted into groups: (1) the most recent IPPs (comprising 73 IPPs, ranging in age from 1 month to 22 months since the IPP had been developed); (2) the second most recent IPP (comprising 46 IPPs, ranging in age from 8 months to 64 months prior to the assessment); and (3) the oldest IPP (consisting of 12 IPPs, ranging from 27 to 72 months since their development). Separate covariate analyses were replicated on these three subgroupings for each of the dependent variables of progress and movement.

Descriptive statistics were utilized to characterize the sample in terms of age, sex, level of functioning, the amount the client had been involved in his/her current program and previous programs, and, the age of the IPP (calculated in months).

Various IPP scores also were utilized for various regression solutions and these included: (1)the total summated IPP score; and (2) each of the 16 IPP criteria item scores. The rationale for this approach was first to determine if the IPP as a whole had an association with

progress and/or movement; if so, subsequent analyses of the specific items were facilitative in determining which criteria for adequately developed IPPs were or were not differentially associated with the same client outcomes. Finally, in determining the impact of these various IPP criteria on progress and movement, stepwise solutions were sought in which:

i) all covariates were entered a priori, and

ii) only those covariates which were statistically significant (at a 0.05 level of significance).

The two approaches of utilizing all covariates, as well as only those which were statistically significant, enabled the determination of the degree of apparent impact of an IPP on client outcome (progress and movement) under varying theoretical conditions. In the first instance, the assumption was made that all potential confounding influences must be controlled regardless of their degree of statistical impact. In such cases, the remaining association that IPP criteria have with outcome is a conservative, but probable lower bound, of the IPP's true influence on the client's progress and movement. In the second instance, the assumption was made that unless a covariate was found to be statistically significant, one could not assume the confounding influence was meaningful; by including only those covariates which were

statistically significant, the possibility of finding a larger association of the IPP with client outcome was enhanced, resulting in an estimated upper bound of the true impact of the IPP. The results and interpretations of these various analyses will be discussed (see chapter 4).

CHAPTER FOUR

RESULTS AND INTERPRETATION

This chapter will present the results and interpretations of the analyses undertaken with respect to the utility of the IPP as it influenced client progress or movement in independent living activities. Before doing so, a description of the staff and the clients of the three agencies included in the study will be provided.

Description of Staff Currently Involved With Study Clients

As described in chapter 3, the staff members of the three agencies (arbitrarily labelled Agency A, B, and C) involved in this study were requested to complete a questionnaire regarding their attitude towards the use of the IPP. A total of 47 staff members were surveyed by questionnaire of which 36 were returned (76.7% response). The staff of agency A had a 100% response rate (17/17), agency B had a response rate of 53.3% (8/15), while agency C had a 73.3% (11/15) response rate. The typical responses of each of three staff groupings are provided in Table 1. More specific detail regarding each of the agencies' responses also are provided in Appendix E.

The staff of the agencies have on the average worked for their respective organizations for 36.8, 19.8 and 21

TABLE 1
STAFF ATTITUDE QUESTIONNAIRE - TYPICAL RESPONSES

	AGENCIES		
	A	B	C
1. LENGTH OF EMPLOYMENT WITH AGENCY (MONTHS)	36.88	19.75	21.0
2. LENGTH OF EMPLOYMENT WITH PROGRAM (MONTHS)	11.47	14.88	7.55
3. TYPE OF FORMAL EDUCATION	2 YEAR DIPLOMA	2 YEAR DIPLOMA	2 YEAR DIPLOMA
4. IPP TRAINING	OWN WORK ENVIRON MENT	FORMAL ACADEMIC	HANDS ON EXPERIENCE
5. LENGTH OF TIME IPP SYSTEM USED (MONTHS)	53.08	10.29	11.72
6. LENGTH TO DEVELOP IPP (HOURS)	10.08	3.60	17.36
7. TIME THAT IPP IS IMPLEMENTED	WHEN CLIENT ENTERS PROGRAM	ONE MONTH AFTER	6MONTHS AFTER
8.REASON FOR USE OF IPP	REQUIRED ADMINIST-RATION	REQUIRED ADMINIS-TRATION	REQUIRED BY SUPERVISOR GOVERNMENT ADMINISTRA-TION
9.TIME IPP IS REFERRED TO	BEFORE CASE CONFE-RENCE & OTHER TIMES	BEFORE CASE CONFE-RENCE	BEFORE CASE CONFERENCE & OTHER TIMES
10.TYPE OF GUIDANCE RECEIVED PRIOR TO IPP IMPLEMENTATION	SUPER-VISOR APPROVES	SUPER-VISOR DISCUSS & APPROVE	SUPERVISOR READS, APPROVES & DISCUSSED
11.IMPROVEMENT SUGGESTIONS	MAKE IT LONGER	CHANGE FORMAT	CHANGE FORMAT
12.OTHERS WHO SHOULD BE INVOLVED	CLIENT PARENT	CLIENT PARENT	CLIENT AND PARENT
13.EFFECT OF THE IPP	POSITIVE EFFECT ON CLIENT	POSITIVE EFFECT ON CLIENT	POSITIVE EFFECT ON CLIENT

months. Their mean length of employment with their specific program was 11.5, 14.9 and 7.6 months. The typical staff member in the three agencies had a two year Diploma program in a Community College (for example, the Rehabilitation Practioner Program at Grant MacEwan Community College in Edmonton).

Agency A respondents indicated that they had learned to use the IPP within their own work environment through internal agency training and hands-on work experience. The majority of agency B staff suggested that they had learned to use the IPP through formal academic training as well as hands on experience, while agency C's staff reported that their IPP training also was through hands-on work experience and their own reading.

The staff of the three agencies indicated that their programs had been using an IPP system for 53, 10 and 11 months respectively. Agency A staff estimated (on average) that one IPP took 10.08 hours to develop (a wide range of 2 to 32 hours were cited across this staff complement). Agency B suggested that it took only 3.6 hours to develop one IPP (range of 2 to 6 hours estimated). Agency C estimated that it took 17.4 hours to develop an IPP (range of 3 to 48 hours).

The responses for the questions regarding when the staff implemented and refered to the IPP, were similar for

all three agencies. That is, the staff of agency A and B implemented the IPP when the client entered the program while the majority of the agency C staff suggested that the IPP was implemented six months after the client entered the program and the IPP was primarily referred to before a case conference. In addition, the respondents commented that the IPP also was referred to on a regular basis during any contact with their clients.

The respondents from all three agencies agreed that the client should be actively involved in the development of the IPP, as should the client's parent(s).

The final question of the survey asked whether the staff felt the IPP had a positive, detrimental,or no effect on assisting the client. All of the participants from agency A and B suggested that the IPP had a positive effect, and a large majority (72%) of agency C participants felt that the IPP had a positive effect. Thirty-six percent (36%) of agency C staff members qualified their answers regarding the effect of the IPP by adding that the IPP "has a positive effect although we may sometimes make the client dependent", that the IPP "system may be too rigid for some components of the agency", and that "it works only if the client is totally involved and ready to learn".

In order to determine if there were any

statistically significant differences in staff attitude towards the use of the IPP among the three agencies, a Chi Square test was applied in reference to the last question in the survey: whether staff felt the IPP had a positive, detrimental or no effect on assisting the client. The results of this analysis are provided in Table 2.

The value of the Chi Square obtained was 4.83. The critical value required for statistical significance with 4 degrees of freedom the 0.05 alpha level was 9.49. As a result the test failed to reject the null hypothesis that there were no differences in attitude towards the use of the IPP among the staff of the three agencies involved in this study.

As noted in chapter 3 this analysis was conducted only to determine whether staff 'attitude' was a probable confounding covariate and whether it should have been incorporated in the main analysis of the association between the IPP and client progress or movement. The results provided in Table 2 suggested that the use 'staff attitude', at an agency level, as a covariate, was probably not necessary. It should be noted, however, that individual staff attitudes might have differentially influenced an individual client's progress and movement. Because of the anomymity of the staff's responses and the fact that the surveyed staff were not necessarily the

TABLE 2

ESTIMATED EFFECT OF THE IPP

BY AGENCY STAFF

AGENCY REPSONSES	NEGATIVE	NO EFFECT	POSITIVE
AGENCY A	0	0	17
AGENCY B	0	0	8
AGENCY C	1	1	8
TOTAL	1	1	33

$\chi^2 = 4.83$

Note. Critical value with 4 degrees of freedom, given analpha level of 0.05. is 9.488.

authors of the IPPs assessed the study, there was no means available of incorporating individual responses as a standardizing covariate.

Notwithstanding this, and as a conservative precaution, dummy variables identifying the different agencies were entered into the multiple regression solution to analyze the systematic effect across agencies. As will become evident later in the chapter, these agency variables also were not found to be statistically significant. As such, it is possible to conclude that agency differences in the development and implementation of the IPP was not a likely source of major effect on the IPP's apparent utility.

Client Sample Description

A total of 73 developmentally disabled individuals were included in this study. A description of their mean ages, levels of functioning, time in current and previous service and the number who had made progress or moved are provided in Table 3. This sample consisted of adults between the ages of 18 and 45 who were receiving residential training from one of the three agencies involved in this research. The group consisted of 42 males and 31 females, whose ages ranged from 19 years to 48 years (with a mean age of 29.9). The sample included only those adults considered to be at the levels of

TABLE 3

SAMPLE DESCRIPTION

	MEAN	STD DEV	RANGE	NUMBER
1. SEX	1.43	0.49		73
1=MALE				42
2=FEMALE				31
2. AGE IN YEARS	29.92	7.56	19-48	
3. LEVEL OF FUNCTIONING	1.52	0.50		
LEVEL 1=HIGHEST				35
LEVEL 2=NEXT HIGHEST				38
4. TIME (MONTHS) WITH CURRENT SERVICE	29.79	24.48	3-100	
5. TIME (MONTHS) WITH PREVIOUS SERVICE	19.15	26.55	0-108	
6. CLIENT MADE:				
PROGRESS				33
NO PROGRESS				40
7. CLIENT HAD:				
MOVED				12
NOT MOVED				61

functioning 1 and 2 according to Alberta Social Services (see Appendix F for definition of these levels). Thirty-five of the individuals in the study were at level 1 while 38 people were at level 2 of functioning.

The clients included in the study had been involved with their program between 3 and 100 months with a mean utilization of their current service of 29.8 months. Though some of the clients had no previous involvement with other similar agencies, other clients had resided in previous programs for as much as 108 months. The mean stay in previous service for this sample was 19.2 months.

A total of 40 (54.8%) clients had made no apparent progress within their programs. On the other hand, a total of .33 (45.2%) had made some progress (i.e., had achieved one or more of the objectives outlined in their IPPs). Sixty-one clients (83.6%) had not moved while 12 clients (16.4%) had moved into less restrictive alternatives.

IPP Description

Pertinent data related to the type and nature of IPP's are provided in Table 4 (i.e., the mean age in months of the IPP and the mean number of IPPs developed for each client). Included in Table 5 are the respective means and variances of the quality of these IPPs (using the IPP scoring system detailed in chapter 3). As

TABLE 4

IPP DESCRIPTION

MOST RECENT IPP

	MEAN	STDDEV	RANGE	NUMBER
AGE OF IPP IN MONTHS	8.5	5.2	1-22	73
NUMBER OF IPPS	1.8	0.71	1-3	

SECOND IPP

	MEAN	STDDEV	RANGE	NUMBER
AGE OF IPP IN MONTHS	16.2	17.9	0-64	46
NUMBER OF IPPS	1.4	1.2	0-3	

OLDEST IPP

	MEAN	STDDEV	RANGE	NUMBER
AGE OF IPP IN MONTHS	6.5	15.4	0-72	12
NUMBER OF IPPS	0.49	1.1	0-3	

mentioned in chapter 3, a total of 131 IPP's were examined. For the purposes of analysis these were separated into three categories; i) those most recently developed IPP's comprising 73 IPPs; ii) the second most recently developed IPP's comprising 46 IPPs; and, iii) the oldest IPP's comprising 12 IPPs.

As noted in Table 4, the most recent IPP group had a mean aged IPP (i.e., the length of time that the IPP has been in effect) of 8.5 months (with a corresponding range of 1 to 22 months). The second group of IPP's had an average age of 16.2 months (range 0 to 64 months), while the oldest IPP's had a mean age of 6.5 months (range 0 to 72 months old). Typically a client in the most recent IPP group had an average of 1.8 IPPs developed, the clients in second IPP group had 1.4 IPPs, while client's in the oldest (most aged) group had no older IPPs.

The assigned score in reference to the 16 essential components of the IPP, for the most recent IPP group ranged from a score of 18 to 31.7 (the maximum score for a perfectly complete IPP being 32). The most recent group had a mean IPP score of 26.2 while the second and oldest IPP groups had mean total scores of 16.0 (range 0 to 31) and 3.9 (range 0 to 30) respectively. Further detail with respect to these assigned scores are also provided in Table 5.

TABLE 5.
INDEPENDENT IPP VARIABLES
MOST RECENT IPP-°N'=73 clients

	MEAN	STD DEV	RANGE	MAX
TOTAL IPP SCORE	26.2	3.4	18-31.7	32
TOTAL PROCESS SCORE	9.8	1.2	7-12	12
1. Client present				
2. Parent Present				
3. Team				
4. Recent Assessment				
5. Strenghts/Needs				
6. Long Term Goal				
OBJECTIVES	11.2	2.4	7-14	14
7. LEADS TO LONG TERM				
8. TARGET FOR CHANGE				
9. SUCCESS CRITERION				
10.'TO' 'FROM'				
11.ID. STAFF METHODS				
12.TREATMENT FREQUENCY				
13.TIMELINES				
TOTAL OVERALL QUALITY	5.2	0.87	3-6	6
14. Age Appropriate				
15. Environment				
16. Progress report				

SECOND IPP - °N'=46

	MEAN	STD DEV	RANGE	MAX
TOTAL IPP SCORE	16.0	12.6	0-31	32
TOTAL PROCESS	6.0	4.9	0-12	14
OBJECTIVES	6.6	5.4	0-14	14
TOTAL OVERALL QUALITY	3.4	2.7	0-6	6

OLDEST IPP -°N'=12

	MEAN	STD DEV	RANGE	MAX
TOTAL IPP SCORE	3.9	8.9	0-30	32
TOTAL PROCESS	1.6	3.7	0-12	14
OBJECTIVES	1.5	3.6	0-14	14
TOTAL OVERALL QUALITY	0.75	1.8	0-6	6

Note. SCORE 1= NOT PRESENT IN IPP DOCUMENT
SCORE 2= PRESENT IN IPP DOCUMENT

Analysis of IPP Impact on Client Movement and Progress

In this section is presented the results and interpretation of the statistical analyses regarding the use and apparent utility of varying IPP quality. The specific null hypotheses examined in the course of this research were as follows.

1. There is no relationship between the overall worthiness of an IPP and client progress or movement within the residential training system provided other relevant confounding factors were statistically controlled as covariates; and

2. There was no relationship between each criterion component of a worthy IPP and client progress or movement within the residential training system, provided statistical control via use of relevant covariates was incorporated.

In other words, the first null hypothesis required the statistical inquiry to focus on whether the use of the IPP had any partial association with client progress or client movement towards less restrictive residential alternatives. The second null hypothesis required statistical inquiry of the partial association of each and any particular component of the IPP as it related to the same criteria of progress and movement. The following section provides the solutions of the various multiple

regression analyses undertaken to test the validity of the above hypotheses.

Most Recent IPP - Total IPP Score

The analyses undertaken to address the first null hypotheses consisted of entering all of the potentially predictive covariates into the regression equation, including: sex, age, level of functioning, time in current service and, time in previous service(s). In Table 6 (explanation of Table content provided in the footnote) the multiple regression solution is provided using the above named covariates as they related to the dependent variable progress (for the 'most recent IPP' group). The Multiple R obtained for this equation was 0.36, thus accounting for only 12.8% of the variance in progress. The linear combination of all five covariates was not statistically significant at a 0.05 level of significance. Despite this, to obtain a conservative, lower bound estimate of IPP impact on client progress, a simultaneous regression solution was used in which these covariates plus the predictor of total IPP score was incorporated into the solution. As noted in Table 7 the incorporation of the additional predictor of the total IPP score produced a statistically significant solution. That is, the squared multiple correlation coefficient moved from .128 (Table 6) to 0.35 (Table 7). In a comparative

TABLE 6 (1)
MOST RECENT IPP'S: DEPENDENT VARIABLE -CLIENT PROGRESSS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
SEX	0.055	0.062	0.59		
TIME IN CURRENT	0.102	0.066	0.61		
TIME IN PREVIOUS	0.065	-0.081	0.52		
AGE	0.277	0.302	0.025	0.36	0.13
LEVEL	-0.175	-0.226	0.07		
(CONSTANT	0.958)				
	F RATIO = 1.973		PROBABILITY OF F =0.094		

Note.
1. VARIABLES: variables entered into specific equation
2. SIMPLE R: univariate correlation of indepedent variable with dependent variable
3. BETA: standardized regression coefficient
4. MULT R: multiple correlation coefficient
5. R^2 : proportion of variance of dependent variable accounted for by the linearly weighted (BETA) variables noted.

TABLE 7

MOST RECENT IPP'S: DEPENEDENT VARIABLE -CLIENT PROGRESS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TOTAL IPP	0.54	0.577	0.0000		
SEX	0.06	0.041	0.683		
TIME IN PREVIOUS	0.07	-0.056	0.608		
TIME IN CURRENT	0.12	0.115	0.306	0.59	0.35
AGE	0.28	0.154	0.201		
LEVEL	-0.18	0.077	0.534		
(CONSTANT -1.34)					
	F RATIO=5.93		PROBABILITY OF F=0.0001		

context, the minimal impact of IPP appears to account for 22% of the variance in progress (0.35-0.13). As described in chapter 3, this represents the most conservative estimate of the IPP's influence on progress.

Although the linear combination of all 5 covariates (Table 6) did not yield statistically significant results, two of these covariates tended to be potentially significant. Specifically, it appeared that as the client grew older (client age), the likelihood of making progress increased. In addition, the higher the functioning level (at least within the levels 1 and 2), the more likely the client was to make progress. The apparent need for controlling for all a priori selected covariates did not seem justified. Using only age and functioning level as covariates produced a statistically significant solution (R^2 being nearly as high as 11.8%). In conjunction with the predictor total IPP score (Table 9), it produced a multiple squared correlation of 0.33. This "less conservative" estimate still suggested that 22% of the variance in progress was accounted for by the influence of the IPP. The optimal solution presented in Table 9 was considered to be statistically significant. Consequently, the first null hypothesis (that there was no relationship between the IPP and client progress) was rejected.

To address the null hypothesis that there was no

TABLE 8*
MOST RECENT IPP'S: DEPENDENT VARIABLE -CLIENT PROGRESS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
LEVEL OF FUNCTIONING	-0.175	-0.195	0.087		
AGE	0.277	0.291	0.012	0.339	0.115
(CONSTANT 1.171)					

*F RATIO = 4.55 PROBABILITY OF F=0.014

TABLE 9
MOST RECENT IPP'S: DEPENDENT VARIABLE -CLIENT PROGRESS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TOTAL IPP	0.539	0.569	0.0000		
AGE	0.277	0.171	0.098	0.578	0.334
LEVEL	-0.175	0.115	0.335		
(CONSTANT -1.29)					

F RATIO = 11.55 PROBABILITY OF F=0.0000

TABLE 10

MOST RECENT IPP'S: DEPENDENT VARIABLE - MOVEMENT

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
SEX	-0.082	-0.098	0.357		
TIME IN CURRENT	-0.320	-0.302	0.013		
TIME IN PREVIOUS	0.049	-0.193	0.099		
AGE	-0.044	0.237	0.055	0.511	0.262
LEVEL	-0.388	-0.353	0.003		
(CONSTANT 1.095)					

*F RATIO=4.75 PROBABILITY OF F=.0009

TABLE 11

TOTAL IPP SCORE - DEPENDENT-MOVEMENT

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TOTAL SCORE	0.415	0.259	0.043		
SEX	-0.082	-0.107	0.301		
TIME IN PREVIOUS	-0.049	-0.182	0.111		
TIME IN CURRENT	-0.320	-0.279	0.018		
CLIENT AGE	0.044	0.154	0.171	0.353	0.306
LEVEL	-0.320	-0.216	0.095		
(CONSTANT 0.692)					

F RATIO=5.93 PROBABILITY OF F=0.0004

relationship between the IPP and client movement towards less restrictive alternatives, the same analysis process was utilized. That is, the following regression solutions were sought: (i) the 5 covariates; (ii) the 5 covariates plus the predictor total IPP score; (iii) only the significant covariates; and finally (iv) the significant covariates plus the predictor total IPP score. The results of these solutions are presented in Tables 10, 11, 12, and 13.

The first solution (Table 10) produced a multiple squared correlation coefficient of 0.26, while the second (Table 11) yielded 0.31. The lower bound estimate of the influence of the IPP on client movement appeared to be 4%. The linear combination of the 5 covariates (presented in Table 10) produced statistically significant results. However, of these covariates, only three were statistically significant at 0.05 level of significance. Specifically, the older the client (client age), the higher the client's functioning level (level of functioning 1 and 2) and, the less time the client used his/her current service (time in current service), the higher the likelihood of movement.

These three covariates then were used in the next solutions (Tables 12 and 13) which resulted in multiple squared correlation coefficients of 0.22 in the first

instance and 0.27 in the second instance. The upper bound estimate of the influence of the IPP was then 5% of the variance in movement. This final solution provided in Table 13 also was considered to be statistically significant. Therefore, it was possible to reject the null hypothesis that there was no relationship between the IPP and client movement.

To summarize, the IPP seemed to have been related to client progress, particularly when the Total IPP score operated jointly with the clients' age (older) and functioning level (higher). In addition, the IPP seemed to have a relationship regarding client movement when accounting for client age, level of functioning and the time (less time) the client had utilized the agencies' services.

Most Recent IPP - Each of The 16 IPP Components

The analyses undertaken to address the second null hypothesis of the partial association of each and any particular criterion item of the IPP as it related to client progres and movement consisted of:

(i) as a conservative precaution, using all variables (5 covariates, and the 16 IPP items), in addition to variables for the number of IPPs, the number of objectives, the age of the IPP (in months) and dummy variables identifying the agencies;

TABLE 12

MOST RECENT IPP'S: DEPENDENT VARIABLE - MOVEMENT

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TIME IN CURRENT	-0.320	-0.283	0.020		
LEVEL	-0.388	0.314	0.006	0.469	0.219
AGE	0.044	0.165	0.151		
(CONSTANT 1.40)					
	F RATIO=6.48		PROBABILITY OF F=0.0006		

TABLE 13

MOST RECENT IPP'S: DEPENDENT VARIABLE -MOVEMENT

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TOTAL IPP	0.415	0.263	0.042		
TIME IN CURRENT	-0.320	-0.261	0.028	0.516	0.266
AGE	0.044	0.102	0.376		
LEVEL	-0.388	-0.177	0.169		
(CONSTANT 0.565)					
	F RATIO=6.16		PROBABILITY OF F=0.0003		

TABLE 14

MOST RECENT IPP'S: DEPENDENT VARIABLE - PROGRESS

VARIABLES	SIMPLE R	ADDITIONAL VARIABLES BETA	PROBABILITY	MULT R	R^2
AGENCY C	0.243	-0.123	0.539		
PARENT PRESENT	0.003	0.066.	0.608		
PROGRESS REPORT	0.391	0.308	0.000		
STRENGHTS & NEEDS LIST	0.152	0.255	0.127		
SEX	0.055	0.121	0.240		
TIME IN PREVIOUS	0.065	-0.022	0.874		
NUMBER OF OBJECTIVES	-0.115	-0.085	0.444		
INTERDISCI-PLINARY TEAM	-0.009	0.030	0.797		
AGE APPROPRIATE	0.121	0.127	0.269		
AGE OF IPP	0.259	0.061	0.641		
NUMBER OF IPPS	-0.244	-0.153	0.213		
SUBSEQUENT ENVIRONMENT	0.234	0.059	0.654		
TARGET FOR CHANGE	0.263	0.272	0.067	0.812	0.659
LONG TERM GOALS	0.168	0.035	0.779		
TIMELINES	0.300	0.288	0.034		
CLIENT AGE	0.277	0.146	0.290		
TIME IN CURRENT	0.102	5.1E-04	0.997		
LEVEL	-0.175	-0.176	0.200		
RECENT ASSESSMENT	0.107	0.222	0.171		
TREATMENT FREQUENCY	0.445	0.347	0.077		
LEAD TO LONG TERM	0.208	0.066	0.676		
CLIENT PRESENT	0.100	0.226	0.393		
'TO' 'FROM'	0.319	0.045	0.824		
SUCCESS CRITERION	0.364	0.206	0.344		
STAFF PROCEDURES	0.428	0.633	0.039		
AGENCY B	-0.073	-0.143	0.745		
(CONSTANT 0.655)					

F RATIO=3.43 PROBABILITY OF F=0.0001

Note. agency A- variable not entered into solution as degree of freedom prohibits such.

(ii) utilizing a simultaneous solution of all 16 items with the 5 covariates to determine the lower bound estimate of the influence of the IPP on client progress and movement; and,

(iii) utilizing the significant covariates with all 16 items to determine the upper bound estimate of the influence of the IPP on client progress and movement.

The purpose of the first solution was to discover if the noted additional variables (number of IPPs, objectives, age of the IPP and variables identifying the agencies) had any spurious influence on the two dependent variables of progress and movement. As can be noted in Tables 14 and 15 these individual variables could not be considered as statistically significant at 0.05 level of significance.

As shown in Table 16 the multiple squared correlation coefficient was 0.64 for the five covariates and 16 IPP items, whereas the five covariates alone had produced a multiple squared correlation coefficient of 0.13 (Table 6). Thus, the conservative estimate of the influence of all IPP items was 51% of the variance in client progress.

The upper bound estimate of all IPP items influence on client progress was 51%. This was arrived at through the solutions in which only the significant covariates of

TABLE 15
MOST RECENT IPP'S: DEPENDENT VARIABLE- MOVEMENT
ADDITIONAL VARIABLES

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
AGENCY C	0.434	0.063	0.730		
PARENT PRESENT	0.003	0.171	0.149		
PROGRESS REPORT	-0.005	-0.074	0.339		
STRENGTHS/NEEDS	0.074	0.306	0.048		
SEX	-0.082	-0.171	0.258		
TIME IN PREVIOUS	-0.049	-0.144	0.258		
NUMBER OF OBJECTIVES	0.134	0.098	0.334		
INTERDISCI-PLINARYTEAM	0.432	0.413	.0003		
AGE APPROPRIATE	0.226	0.059	0.574		
AGE OF IPP	0.376	0.093	0.439		
NUMBER OF IPPS	-0.244	-0.059	0.601		
SUBSEQUENT ENVIRONMENTS	0.097	-9.4E-0	0.994		
TARGET FOR CHANGE	-0.262	0.105	0.433		
LONG TERM GOALS	0.168	0.159	0.167	0.844	0.712
TIMELINES	-0.143	-0.410	0.002		
CLIENT AGE	0.044	0.113	0.376		
TIME IN CURRENT	-0.320	-0.062	0.606		
LEVEL	-0.388	-0.188	0.138		
RECENT ASSESSMENT	0.052	0.268	0.077		
TREATMENT FREQUENCY	0.291	0.239	0.395		
LEAD TO LONG TERM	0.301	0.038	0.796		
CLIENT PRESENT	0.179	1.15	0.005		
'TO' 'FROM'	0.471	0.424	0.025		
SUCCESS CRITERION	0.258	0.234	0.241		
STAFF PROCEDURES	0.277	0.169	0.554		
AGENCY B	-0.254	-0.709	0.089		
(CONSTANT 1.47)					
	F RATIO=4.38		PROBABILITY OF F=0.0000		

level of functioning and client age and the 16 predictor IPP items were calculated (Table 17), producing a multiple squared correlation coefficient of 0.62 as compared with the significant covariates alone (see Table 8 - R^2 =0.12). In addition, as shown in Table 17, the two IPP item variables of "the document has a progress report" (probability of BETA =0.0000) and "the objectives specify timelines" (probability of BETA=0.02) were significant at the 0.05 level of significance.

The above process of analysis to determine the influence of the IPP items on client progress was also used to discover the influence of the IPP on client movement.

The lower bound estimate of this influence was 42% of the variance in client movement. The regression solutions consisted of the following:

i) the five covariates alone (Table 10) producing a multiple squared correlation coefficient of 0.26;

ii) the five covariates plus the 16 IPP items producing a multiple squared correlation coefficient of 0.68 (Table 18).

For the next solutions, only the significant covariates and then the significant covariates plus the 16 predictor IPP items were utilized. As shown in Tables 12 and 19 the respective multiple squared correlation

TABLE 16
MOST RECENT IPP'S: - DEPENDENT VARIABLE -CLIENT PROGRESS
5 COVARIATES + 16 IPP ITEMS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TIMELINES	0.500	0.312	0.017		
STRENGTHS & NEEDS	0.152	0.249	0.111		
SEX	0.055	0.131	0.188		
AGE APPROPRIATE	0.121	0.132	0.234		
				0.799	0.639
PROGRESS REPORT	0.591	0.512	0.0000		
CLIENT PRESENT	0.100	-0.168	0.289		
CLIENT AGE	0.277	0.175	0.144		
INTERDISCIPLINARY	-0.009	0.051	0.631		
PARENT PRESENT	0.003	0.091	0.397		
LONG TERM GOAL	0.168	-0.063	0.575		
SPECIFIC TARGET	0.265	-0.259	0.069		
TRAINS FOR SUBSEQUENT	0.254	0.015	0.903		
TIME IN CURRENT	0.102	-0.029	0.808		
TIME IN PREVIOUS	0.065	-0.079	0.516		
LEVEL	-0.175	-0.143	0.257		
°TO' °FROM'	0.319	-0.045	0.747		
RECENT ASSESSMENT	0.107	-0.223	0.150		
STAFF PROCEDURES	0.428	0.608	0.035		
LEAD TO LONG TERM	0.208	0.079	0.592		
SUCCESS CRITERION	0.564	0.252	0.197		
TREATMENT FREQUENCY	0.445	-0.528	0.059		

(CONSTANT 0.147)

F RATIO=4.29 PROBABILITY OF F=0.0000

TABLE 17
MOST RECENT IPP'S: DEPENDENT VARIABLE - CLIENT PROGRESS
SIGNIFICANT COVARIATES + 16 IPP ITEMS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
LEVEL	-0.175	-0.145	0.245		
PROGRESS REPORT	0.591	0.499	0.0000		
PARENT PRESENT	0.003	0.116	0.262		
STRENGTHS/NEEDS	0.152	0.174	0.222		
AGE APPROPRIATE	0.121	0.115	0.281		
TEAM	-0.009	0.069	0.508		
STAFF PROCEDURES	0.428	0.492	0.066		
LONG TERM GOAL	0.168	0.055	0.606	0.790	0.624
CLIENT AGE	0.277	0.138	0.217		
'TO' 'FROM'	0.319	0.010	0.934		
TIMELINES	0.500	0.294	0.017		
CLIENT PRESENT	0.100	-0.186	0.187		
SPECIFIC TARGET	0.265	-0.219	0.108		
RECENT ASSESSMENT	0.107	0.152	0.280		
LEAD TO LONG TERM SUCCESS	0.208	0.039	0.785		
CRITERION TREATMENT	0.564	0.276	0.123		
FREQUENCY	0.448	-0.469	0.082		

(CONSTANT 0.229)

F RATIO=4.98 PROBABILITY OF F=0.0000

TABLE 18
MOST RECENT IPP'S: DEPENDENT VARIABLE-CLIENT MOVEMENT
5 COVARIATES + 16 IPP ITEMS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TIMELINES	-0.143	-0.409	0.001		
STRENGTHS/NEEDS	0.074	-0.300	0.044		
SEX	-0.082	-0.193	0.041		
AGE APPROPRIATE	0.226	-0.048	0.647		
PROGRESS REPORT	-0.005	-0.112	0.248		
CLIENT PRESENT	0.179	-0.507	0.001		
CLIENT AGE	0.044	0.186	0.099		
TEAM	0.432	0.417	0.0001		
PARENT PRESENT	0.003	0.269	0.010		
LONG TERM GOAL	0.168	0.229	0.033		
SPECIFIC TARGET	0.262	0.123	0.354	0.824	0.679
TRAINS FOR SUBSEQUENT	0.097	-0.055	0.627		
TIME IN CURRENT	-0.320	-0.036	0.751		
TIME PREVIOUS	-0.049	0.207	0.075		
LEVEL	-0.388	-0.245	0.041		
'TO' 'FROM'	0.471	0.414	0.003		
RECENT ASSESSMENT	0.052	0.297	0.045		
STAFF PROCEDURES LEAD TO LONG TERM SUCCESS	0.277	-0.084	0.753		
CRITERION TREATMENT FREQUENCY	0.301	0.073	0.599		
(CONSTANT 0.236)	0.258	0.071	0.698		
	0.291	0.252	0.373		

F RATIO=5.15 PROBABILITY OF F=0.0000

TABLE 19
MOST RECENT IPP'S: DEPENDENT VARIABLE -CLIENT MOVEMENT
SIGNIFICANT COVARIATES + 16 IPP ITEMS

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TIME IN CURRENT	-0.320	-0.072	0.536		
STRENGTHS/NEEDS	0.074	0.156	0.273		
STAFF PROCEDURES	0.277	0.199	0.655		
SUBSEQUENT ENVIRONMENT	0.097	0.039	0.732		
PARENT PRESENT	0.192	0.212	0.043		
TEAM	0.432	0.385	0.0005		
PROGRESS REPORT	-0.005	-0.097	0.327	0.797	0.635
AGE APPROPRIATE	0.226	-0.016	0.880		
LONG TERM GOAL	0.306	-0.208	0.059		
CLIENT AGE	0.044	0.261	0.023		
'TO' 'FROM'	0.471	0.313	0.021		
TIMELINES	-0.143	-0.359	0.004		
LEVEL	-0.388	-0.241	0.054		
SPECIFIC TARGET	0.262	0.051	0.709		
ASSESSMENT	0.052	0.158	0.205		
LONG TERM SUCCESS CRITERION	0.301	0.147	0.306		
TREATMENT FREQUENCY	0.258	5.7E-05	0.999		
(CONSTANT 0.172)	0.291	0.116	0.664		

F RATIO=4.85 PROBABILITY OF F=0.0000

coefficients were 0.22 and 0.64. Thus the upper bound estimate of the influence of the IPP also was 42% of the variance in client movement. As shown in Table 19, the following variables were found to be significant at the 0.05 level of significance: client age; parent was involved in the development of the IPP; client was involved in the development of the IPP; an interdisciplinary team was involved in the development of the IPP; the objectives had a 'to' 'from' statement (i.e., indication of current and expected level of performance); and finally, the objectives had timelines for completion.

In summary, one was able to reject the null hypothesis that there was no partial association between each and any particular criterion item of the IPP and a client's progress and movement. In addition, it seemed that particular IPP items were more important for inclusion in an IPP. Specifically, having a progress report and ensuring that the objectives had timelines were significant at 0.05 level for client progress. Having an interdisciplinary team, the parent and the client involved in the development of the IPP, ensuring that the objectives had 'to' 'from' statements and the presence of timelines appeared to be most important (i.e., significant

Second and Oldest IPPs

The analytic procedures that were utilized to analyze the relationship of the IPP with client movement and progress for the most recent IPP, were replicated for the second and oldest IPPs. Since the number of IPPs which were examined for the 'second' and 'oldest' IPP groups were considerably less (the number of predictors remained constant), the increased size of the multiple correlation coefficient that was found (Tables 20 to 23) should not be seen as indicative that these predictors were necessarily more important in these older IPP's. Given this artificial inflation, only optimal solutions utilizing significant variables (at 0.05 level of significance) are reported here.

The independent IPP item variables, "objective has a success criterion" and "the document has a progress report" were entered for the second IPP group for predicting progress. The multiple R was 0.93. All of the covariates were entered into the solution for the oldest IPP group for predicting Progress, yielding a multiple R of 0.98. The regression solution for particularly the second IPP group seemed to confirm that having a progress report was related to predicting client

TABLE 20

SECOND OLDEST IPP'S:- DEPENDENT VARIABLE-CLIENT PROGRESS

OPTIMAL SOLUTION

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
SUCCESS CRITERION	0.904	0.481	0.0000		
PROGRESS REPORT	0.905	0.078	0.0000	0.934	0.873

*F RATIO=239.52 PROBALITY OF F=0.0000

TABLE 21

OLDEST IPP'S: DEPENDENT VARIABLE -CLIENT PROGRESS

OPTIMAL SOLUTION

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TIME IN PREVIOUS	0.602	-0.189	0.006		
TIME IN CURRENT	0.957	0.612	0.0000		
SEX	0.876	-0.195	0.014	0.981	0.963
LEVEL	0.872	-0.131	0.048		
AGE	0.911	0.851	0.0000		
(CONSTANT 0.002)					

F RATIO=349.22 PROBABILITY OF F=0.0000

TABLE 22
SECOND OLDEST IPP'S: DEPENDENT VARIABLE - CLIENT MOVEMENT

VARIABLES	SIMPLE R	OPTIMAL SOLUTION BETA	PROBABILITY	MULT R	R^2
TIME IN CURRENT	0.422	-0.242	0.0004		
CLIENT AGE	0.833	0.412	0.0007		
°TO'°FROM'	0.868	0.481	0.0000		
INTERDISCI-PLINARY TEAM	0.779	0.497	0.0000	0.938	0.879
CLIENT IS PRESENT	0.790	-0.376	0.0030		
HAS LONG TERM GOAL	0.840	0.263	0.0116		
(CONSTANT 0.122)					

F RATIO=67.76 PROBABILITY OF F=0.0000

TABLE 23
OLDEST IPP'S:DEPENDENT VARIABLE -CLIENT MOVEMENT
OPTIMAL SOLUTION

VARIABLES	SIMPLE R	BETA	PROBABILITY	MULT R	R^2
TIME IN PREVIOUS	0.602	-0.110	0.0000		
SEX	0.937	-0.038	0.0780		
LEVEL	0.853	0.069	0.0000		
HAS STAFF PROCEDURES	0.957	1.12	0.0000		
HAS °TO' °FROM'	0.869	-0.839	0.0000	0.999	0.999
CLIENT AGE	0.932	0.331	0.0000		
AGE OF IPP	0.970	0.239	0.0000		
INTERDISCI-PLINARY TEAM	0.866	-0.220	0.0000		

TABLE 24
MOST RECENT IPP'S
SUMMARY OF MULTIPLE SQUARED CORRELATION COEFFICIENTS

	DEPENDENT VARIABLES	
	CLIENT PROGRESS	CLIENT MOVEMENT
5 COVARIATES (1)	0.128	0.262
SIGNFICANT COVARIATES	0.115 (2)	0.219 (3)
5 COVARIATES + TOTAL IPP	0.350	0.306
SIGNIFICANT COVARIATES + TOTAL IPP	0.334	0.266
5 COVARIATES + 16 IPP ITEMS	0.639	0.679
SIGNIFICANT COVARIATES + 16 IPP ITEMS	0.624	0.635

Note.
*(1) the 5 covariates included: client age, sex, level of functioning, time in current service and time in previous service.
(2) the significant covariates in reference to client progress were: client age and level of functioning.
(3) the significant covariates in reference to client movement were: client age, level of functioning and time in current service.

predicting client movement, the respective multiple R's were 0.94 and 0.99 (see Tables 22 and 23). The previously noted caution with respect to the small number of IPPs included in these groups still applies. Notwithstanding this, a confirmation that the IPP components of "an interdisciplinary team was involved in the development of the document", "the objectives have 'to' 'from' statements", and "the objectives identify timelines for completion" still seemed to be related to client movement towards less restrictive alternatives.

Interpretation

The purpose of the previously cited statistical analyses was to determine whether the IPP had any relationship with client progress and movement, provided potential confounding influences were statistically controlled. A second focus of the analysis was to discover if any of the components of the IPP had particular relationship on these two dependent variables.

To highlight the findings of these analyses (in reference to the most recent IPP's) the reader should refer to Table 24.

In addressing the first statistical inquiry, "There is no relationship between the IPP and client progress and movement", the null hypothesIs was rejected. While controlling for the two covariates of "client age" and

"level of functioning" the total IPP appeared to have had a relationship with client's progress. Taking into account these same two covariates in addition to the amount of time the client has utilized the agency's service, the total IPP also seemed to be related to the client's movement towards less restrictive alternatives. These findings confirmed suggestions in the literature which outlined that using an IPP system will have a positive impact on developmentally disabled individuals' development.

The second focus of the research was to determine if any particular items of the IPP had any relationship on assisting the client in making progress or moving to less restrictive alternatives. The findings suggested that in reference to the dependent variable of client progress (while controlling for the client's age and level of functioning), having a progress report and ensuring that the objective had clearly stated timelines were particularly important

These latter results are born out in the literature. Specfically, Stephens and Yu (1985) promoted the inclusion of a progress report as part of the IPP process, and Mager (1975) highlighted the need for identifying expected performance within specific timeframes in the development of instructional objectives.

The findings for predicting client movement to less restrictive alternatives suggested that while controlling for client age, level of functioning and time in current service, the following elements seemed important: having the client, parent and an interdisciplinary team involved in the development of the IPP; ensuring that the objectives had timelines and 'to' 'from' statements.

Schacter et al (1978) described the development of the IPP as including a process in which an interdisciplinary team is involved. Clay and Stewart (1980) and Anderson et al (1978) in describing IPP standards in the school system suggested that the parent and the handicapped person should be included in the development of the document. Mager (1975), Stephens and Yu (1985) described essential components of the IPP as being outcome oriented. That is, specific goal oriented statements are mandatory if one is to expect that the client will achieve the identified skills and a level of skill which is functionally worthwhile.

Summary

A survey of the staff currently employed with the three agencies involved in this study provided descriptive information regarding the time these staff had worked with these agencies, their average formal education and the specific IPP training they had

received. In addition, information regarding the type of IPP system each of the agencies used, and the staff feelings regarding the use of the IPP was gathered. The majority of the 36 staff members who responded to the survey felt that the IPP had a positive effect on assisting the client in acquiring skills. The Chi Square test which was utilized for this specific question did not yield statistically significant differences. Thus it was concluded that the varying staff attitudes towards the use of the IPP probably had no great confounding impact on the apparent utility of the IPP in reference to client progress and movement.

A multiple regression procedure was utilized to assess the utility of the overall impact of the IPP, as well as various criterion elements of the IPP on client progress and movement.

The results allowed for the rejection of the first null hypothesis that there is no relationship between the use of the IPP and client progress and movement. In addition, the null hypothesis that "there is no partial relationship between each and any of the IPP items and client progress and movement" also was rejected. The final chapter provides further discussion regarding these statistical findings and offers policy recommendations which follow from this study.

CHAPTER 5

DISCUSSION AND RECOMMENDATIONS

Review

The use of the IPP as a systematic process to coordinate services for the developmentally disabled is widespread (Stephens & Yu, 1985). In Alberta, the Department of Social Services, as part of its standards, requires residential training agencies to develop an IPP for each of the clients involved with programs it supports (ASSCH, Residential Services Program, 1983).

Some of the essential components of the IPP are in the form of instructional objectives. Mager (1975) suggested that specifying the performance, its criterion level and the important conditions under which a behaviour will be expected are essential components of any instructional objective. Stephens and Yu (1985) suggested similar components for the IPP and in addition, these authors believe that the complete IPP should contain a progress report. Schacter et al (1978) suggested that an interdisciplinary team should be involved in the development of the IPP. Clay and Stewart (1980) and Anderson et al (1978) described the involvement of the parent and the client as necessary to the IPP process.

The logic of utilizing a systematic, clearly

delienated written plan of action to assist developmentally disabled individuals is obvious. Maher (1980) and Page et al (1981) suggested that further research is necessary to determine whether the use of this type of process has any benefit to the client. This provided impetus for the study outlined in the previous chapters. The purpose of this research was to examine the utility of various components of an IPP in relation to assisting developmentally disabled clients to acquire skills which will allow them to become increasingly independent.

Discussion

As previously mentioned in chapter 3, the sample included in the study could not be randomly selected as those chosen were a confined accessible population. However, some potentially spurious influences were statistically controlled which enabled enhancement of internal validity. The influences of client age and level of functioning were statistically significant (i.e., relating to client progress or achievement of outlined IPP objectives). Specific to this sample a factor for the agencies to be aware of, it was found that the higher functioning and older client (i.e., older than the mean of this sample $x=29$ years old) typically made better progress. These two factors were also influences on client movement to less restrictive alternatives. In

addition to functioning level and age, the less time the client was involved with his current service the more likely he was to move.

It is difficult to assess whether the three covariates mentioned above could be completely generalized to the larger population of developmentally disabled adults. Notwithstanding this caution, the agencies involved with this study could make note of this pattern of progress and movement. The agencies could ensure that not only the clients with the above stated characteristics were making positive gains but also that clients who are younger and/or lower functioning are focused upon in order to assist them in progressing.

A potential limitation of the study was the accuracy and completeness of client files. Given the training of the average employee at a Community College level, it would be expected that this would prepare staff to record information which is sufficiently defendable. However, in reference to this study, this remains as an assumption as no check on validity of recording was possible. Since the reported staff attitudes towards IPPs were on the whole very positive, it would seem that staff had a vested interest in maintaining complete file information. Finally, it should be noted that files were subject to audit by the funding body and therefore staff had external

motivation to maintain their files in a professional manner. Regardless, exercising tighter controls over client file information (through objective and consistent monitoring of current file information) would be advisable for any future research in this area.

In reference to the cited limitation regarding the possible influence of former staff, it is possible to argue that a primary staff trainer impact on client skill acquistion would be the staff who were currently charged with the implementation of the IPP. It is noted that those staff who were surveyed are those who were also primarily responsible for training. Former staff who may have had a role in the development of the IPP document are likely to have had only a negligible influence on the progress or movement of the individual.

Notwithstanding this discussion, another type of investigation could be designed to prospectively (rather than retrospectively) examine the impact of IPPs. Such a study would more adequately control for this possible influence of the staff trainer.

With repsect to the potential influence of organizational philosophy, staff training and the stage of organizational development, it was quite clear that these factors were very different among the represented organizations. If these factors were important

confounders, it would have been expected that as agencies (dummy variables A, B, and C), were entered as covariates, some would have been found to be statistically significant in the regression solution. This difference did not appear in the results of the analysis (see Tables 14 and 15). While individual variables outside the realm of more careful measure but relating to organizational dimensions must still be influential, the summative influence of all were found not to be systematically influential.

Other influences, such as parents, volunteers, and social workers, are considered outside the scope of this research and are addressed briefly in the recommendations section of this chapter.

Review of Analysis

The research involved 73 people receiving residential training from three non-profit agencies in the City of Edmonton. The results of the statistical analysis, as presented in chapter 4 lead to the rejection of the two null hypotheses.

The first null hypothesis was: "There is no relationship between the IPP and client progress and movement". Specifically, it seemed that the quality of the overall IPP did relate to developmentally disabled clients making progress and moving to less restrictive alternatives within residential training systems.

The second statistical question addressed in the analysis was: "There is no relationship between components of the IPP and client progress and movement". The results lead to the rejection of this null hypothesis. The outcome of this analysis suggested that certain elements of the IPP were more predictive of gain than others, specifically:

-that the document had a progress report;

-that the objectives had a °to' °from' statement (i.e., clarified at which level the client was presently performing and at which level was the next step to be performed.);

-that the objectives identified timelines for completion

-that the client, the parent and an inter-disciplinary team was involved in the development of the IPP document.

These results concur with some of the suggested critical IPP components (Mager, 1975; Stephens et al, 1985; Schacter et al, 1978; Clay & Stewart, 1980; Anderson et al, 1978).

There appears to be logical explanations which could be invoked as to why these particular components were to be predictive. In general terms the components may be organized in three areas.

The first area is structure which relates to the reporting of client progress. The progress report can be considered as a linking mechanism for professionals to receive feedback on the success of the developed IPP. This may, in turn, have impact on how future IPPs are developed. Obviously, the progress report can also facilitate and/or stimulate further intervention and action to effect client progress or movement.

The second area is process which in this context relates to the involvement of the client, the parent and an external professional during the development of the IPP. It would seem possible that the involvement of these individuals created a perception of accountability for the quality of the plan. It potentially enabled cross-validity checks in setting realistic and attainable goals for and with the client.

Finally, and most important, is the emphasis on outcome such as objectives which should identify timelines, and, have 'to' 'from' statements. This also is consistent with applied behavioural techniques which focus on the measurement of real progress or actual movement to less restrictive residential alternatives. Clearly, if the client and the professional are in agreement as to what is expected, the opportunity for focussed activity (in improving desired behaviour) is enhanced.

Recommendations

Even though the sample chosen was one of convenience and accessiblity the sample size was relatively adequate in reference to generalizability to the larger population of developmentally disabled adults in the province of Alberta. Further the agencies included in the study were the largest residential training programs in Edmonton. Thus if these particular agencies were to use the results of this study for improving the quality of their IPPs, benefits might well result for a substantial number of developmentally disabled clients in Edmonton. As a result the following recommendations are offered for consideration by the involved agencies.

It is recommended that the agencies continue to use an IPP system as a planning process for the consumers of their service and that this IPP system include structure, process and outcome categories. The structure of the IPP system can be improved by ensuring that progress reporting is consistently utilized by the staff members of the agencies as a means for feedback regarding client modification and as a tool for improving future IPPs. The process of developing the IPP should include the client and parent, and in addition, include at least another interested professional as part of a team effort to produce the best plan for the consumer of service.

In keeping with the behavioural focus of the IPP, it is important to ensure that this document is primarily outcome oriented. Specifically, objectives should include clearly delineated timelines for completion, as well as, 'to' 'from' statements.

Further to the above, it might be advantageous for the major funder, charged with monitoring and evaluation across the province of Alberta, to consider further research into the determinants of quality of the IPP as it relates to developmentally disabled individuals progress and/or movement to less restrictive alternatives. A Provincial study could include a larger sample of individuals of differing ages and levels of functioning involved with various services (e.g. schools, vocational training programs and residential training programs).

Based on this research it would be possible to conduct an intervention study in which two comparative groups were established consisting of staff who were trained to prepare and implement training in reference to high quality IPPs and a second control group. The effect of this training could then be further evaluated for a more definitive estimate of the degree and perhaps the speed of the impact that IPP's have in relation to effecting independent living abilities among disabled adults.

Finally, as a suggestion to extend this and any other future research, a study which exercised tighter controls on pre-existing influences such as: parents, other professionals, client motivation, client functional skill level (e.g., independence to ride public transportation or cooking full meals etc.,) or ability to maintain a job in the competitive workforce, could be conducted.

A key issue which could not be resolved in the context of this study was the potential confonding influence of the staff member (practioner) on the clinet's improvement. An optimal design would investigate both the effect of the practioner's ability to help the client and the impact of the IPP. By comparing the utility of the IPP system with that of an alternate treatment method, while simultaneously examining the practioner influence on client progress/movement, the true effect of the IPP could be more properly isolated.

The results of this study demonstrate that the dismissal of the use of the IPP is not warranted. The IPP potential for improving independence of developmentally disabled adults appears to have been positive in those studied in this research. Future, more definitive studies could serve to refine the use of the IPP.

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Appendix A

CONTINUUM

LESSER RESTRICTIVE ENVIRONMENTS

Total or Semi Independence

client no longer requires professional assistance

may have volunteer or an advocate involvement

Approved Support

professionals provide limited (re:hours)

assistance to clients

Independent Living Services

professionals provide continued assistance

while client lives in own residence

Apartment Training Programs

client residing in apartment building with

intensive training and limited supervision

Group Home

three to six clients living in the same dwelling

receving supervision and training

Appendix B

FACE VALIDITY QUESTIONNAIRE

PLEASE CONSIDER HOW NECESSARY EACH OF THE FOLLOWING ITEMS ARE FOR INCLUSION IN A COMPLETE INDIVIDUAL PROGRAM PLAN (IPP). USE A CHECKMARK (/) TO INDICATE YOUR OPINION.

1	2	3	4	5
NEVER NECESSARY (NN)	RARELY NECESSAR (RN)	NEUTRAL (N)	OCCASIONALLY NECESSARY (OC)	ALWAYS NECESSARY (AN)

		1. NN	2. RN	3. N	4. ON	5. AN
1.	The client name is					
2.	An indication that the client was presentduring the planning process is					
3.	An indication that the residential worker has participated is					
4.	An indication that the vocational worker has participated is					
5.	An indication that a family member/guardian has participated is					
6.	An indication that the client°s social worker has participated is					
7.	An indication that formal (psychological)testing has been conducted is					
8.	An indication that a functional asssessment(observation of client skills in his/herown environment) has been utilized is					
9.	An indication that an ecological inventory has been conducted is					
10.	Medical or health information is					
11.	An indication of client strengths is					
12.	An indication of client skills defecit(needs) is					
13.	Identification of annual goals are					

		NN	RN	N	ON	AN
14.	Identification of long term goals (one year or more) are					
15.	Identification of short term objectives (less than one year) are					
16.	Longer term goals are written as observable and measurable descriptions of the behaviour that is expected to be accomplished					
17.	Longer term goals are written to identify: a) the desired direction for what is to be accomplished b) a "from" statement indicating the present level of perfomance c) a "to" statement indicated the expected level of performance d) resources (people, materials) needed to accomplish the goal					
18.	Short term objectives are written as observable and measurable intermediate steps which lead to the accomplishment of the long term goals					
19.	Short term objectives are written to identify: a) The method that will be used to assist the client in learning b) The criteria for success c) The environment in which the skill will be taught d) The condition under which the behaviour will occur e) The time when the skill will be taught f) Timelines for completion g) The date of initiation					
20.	An indication of how correct or incorrect responses and prompts will be recorded is					
21.	Identification of person(s) responsible for assisting the client in learning is					
22.	An indication that skills are to taught are in order of priority is					
23.	An indication that the skills to be taught are age appropriate					

		NN	RN	N	ON	AN
24.	An indication that the skills to be taught prepare the individual for subsequent environments is					
25.	An indication that the priorities are established as: a)first- health and safety issues b)second- training which focuses on enhancing existing skills or strenghts c)third- training which focuses on skills which require the greatest improvement					
26.	An indication that the time for review is at least twice a year					
27.	An indication of how changes to the IPP can be made					
28.	An indication of who can make changes					
29.	An indication of how the successful performance of the skill will be maintained is					
30.	An indication of the reccomended next step(s) for the client to undertake is					

FACE VALIDITY RESPONSES

	NEVER NECESSARY	RARELY NECESSARY	NEUTRAL	OCCASSIONALLY NECESSARY	ALWAYS NECESSARY
1.					100%
2.					100%
3.					100%
4.			14%	57%	29%
5.			14	57%	29%
6.			43%	29%	29%
7.		57%		14%	14%
8.					100%
9.			14%	42%	29%
10.				71%	29%
11.					100%
12.					100%
13.					100%
14.			14%	14%	71%
15.					100%
16.					100%
17.a)					100%
b)					100%
c)					100%
d)				29%	71%
18.					100%
19.a)					100%
b)					100%
c)				14%	86%
d)					100%
e)				29%	71%
f)					100%
g)				14%	86%
20.					100%
21.				14%	86%
22.					100%
23.				14%	86%
24.			14%	14%	86%
25.					100%
26.			14%	14%	86%
27.				43%	57%
28.				29%	71%
29.					100%
30.				29%	71%

COMMENTS PROVIDED BY RESPONDENTS

QUESTION 5. Depends on adult status; if the client agrees.

QUESTION 6. Depends on the social worker function (e.g. service coordination), if the social worker knows the client well (e.g. permanent wards' worker); only applicable when dealing with financial matters concerning the client.

QUESTION 7. Rarely used unless some psychological or behaviour disorder; only as needed.

QUESTION 10. Only applicable if it affects clients' skill functioning (e.g. motor impairment, multiple seizures, medication administration)

QUESTION 17. Found mainly in short term; this is describing the components of °objectives' rather than long term goals all components are °always neccessary'in objectives; this more closely describes objectives.

QUESTION 19. the method criteria for success, environment, conditions and timelines will be included in each phase of the teaching plan which is designed to teach and maitain the skill neccessary to reach the objective; should also include reinforcement, error corection , program changes; maybe more appropriate in a teaching plan.

QUESTION 26. Should be monitored daily, weekly, monthly depending on program to make sure acquisition of a skill in increasing; regular program reviews (every two weeks using data summaries).

Appendix C

CONTENT VALIDITY QUESTIONNAIRE

PLEASE CONSIDER HOW NECESSARY EACH OF THE FOLLOWING ITEMS IS FOR INCLUSION IN A COMPLETE INDIVIDUAL PROGRAM PLAN (IPP). USE A CHECKMARK (/) TO INDICATE YOUR OPINION.

1.Never Necessary (NN) 2. Rarely Necessary (RN) 3. Neutral (N) 4. Occasionally Necessary (OC) 5. Always Necessary

	1. N.N.	2. R.N.	3. N.	4. O.C.	5. A.N.
1. The client name is					
2. An indication that the client was present during the planning process is					
3. An indication that an interdisciplinary team has been involved in the development ofthe IPP (eg: vocational,residential, social worker,parent) is					
4. An indication that a functional assessment (observation of client skill in his/her environment)has been utilized is					
5. An indication that an ecological inventory has been conducted is					

1. 2. 3. 4. 5.

6. An indication of client strengths is

7. An indication of client needs is

8. Identification of longer term goals (one year or more)which are descriptions of behaviour(s)skills that are expected to be accomplished is

9. Longer term goals are written to identify the desired direction for what is to be accomplished

10. Identification of short term objectives which are descriptions of intermediate steps that lead to the accomplishment of the longer term goal is

11. Short term objectives are written to identify:
a) 'from' statement indicating -present level of performance
b) 'to' statement indicating -expected level of performance
c) the resources (people, materials) needed to accomplish the objective
d) the method that will be used to assist the client in learning
e) the criteria for success

1. 2. 3. 4. 5.

f) the conditions under which the skill will be taught
g) the time when the skill will be taught
h) timelines for completion
i) the date of initiation

12. An indication of how correct, incorrect responses and prompts will be recorded is

13. Identification of person(s) responsible for assisting the client in learning the skill is

14. An indication that priorities have been established in the following order of priority:
1. health and safety;
2. training which focuses on enhancing existing skills /strengths;
3. training which fcouses on skills which require the greatest improvement(needs) is

15. An indication that the identified skills are age appropriate is

16. An indication that the skills to be taught prepare the individual for subsequent environments is

1. 2. 3. 4. 5.

17. An indication that the IPP will be reviewed at least twice a year is

18. An indication of who and under what circumstances changes to the IPP can be made is

19. An indication of how the successful performance of the skill will be made is

20. An indication of the recommended next step(s) for the client to undertake is

RESPONSES
CONTENT VALIDITY QUESTIONNAIRE

	NEVER NECESSARY	RARELY NECESSARY	NEUTRAL	OCCASSIONALLY NECESSARY	ALWAYS NECESSARY
1.					100%
2.				11%	89%
3.			11%		89%
4.				11%	89%
5.			11%	11%	78%
6.					100%
7.					100%
8.					100%
9.				11%	89%
10.					100%
11.a)			11%		89%
b)				11%	89%
c)	11%		11%		78%
d)	22%		11%	11%	56%
e)	11%				89%
f)	11%		11%	11%	67%
g)	22%		11%	11%	56%
h)				11%	89%
i)	11%			11%	78%
12.	11%		22%	11%	56%
13.			11%	22%	56%
14.			11%	22%	67%
15.				33%	67%
16.				11%	89%
17.				22%	78%
18.					100%
19.			11%	11%	66%
20.			22%		78%

COMMENTS FROM RESPONDENTS

QUESTION 2. Or an indication as to why client chose not to attend and how she/he made her/his input into the process; we would like to involve our clients but parents/guardians are key representatives for our clients.

QUESTION 5. If such an inventory is appropriate for the IPP, it is desirable for a General Service Plan.

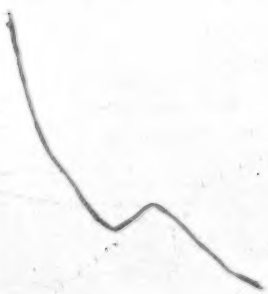
QUESTION 8. Does not need to be excessively detailed.

QUESTION 11. Section c), d), e), f) and g) part of the instructional program; actually written into a program not necessarily in the objective, the program is developed based on the behavioral objective; c), d), e), g) and i) necessary but not part of an objective statement; e) should be self evident by the 'to' statement.

QUESTION 14. Don't know if this is and number one priority in establishing priorities in programs.

QUESTION 15. Most commonly required with the dependent handicapped.

QUESTION 16. Should be evident from the long term goal.



Appendix D

CONSENT FOR THE RELEASE OF INFORMATION

TITLE OF RESEARCH PROJECT: Factors Effecting Client Progress Within a Residential Program

I, , consent to the release of information contained in my personal file held by,
(name of agency). I understand that this information will be only used for a research project which is attempting to determine which factors will have a positive effect on assisting clients involved with residential training in becoming increasingly independent.
I understand that the information collected from my file will be held in confidence at all times and that no identifier will be use in any part of the report(s). Further it is understood that I may withdraw my consent and involvement in this project at any time.

Name

Signature

Legal Guardian Signature (if necessary)

Witness

Date

FACTORS EFFECTING CLIENT PROGRESS
IN RESIDENTIAL TRAINING PROGRAMS

The purpose of the research is to look at possible factors which could help group home clients in becoming increasingly independent. Specifically, the researcher wishes to find out if the use of Individual Program Plans (IPPs) has any positive effects on assisting the person in progressing. Other factors which will be looked at include: age; sex; the amount of time the person has resided in the group home; the amount of time the person has been in other group homes or institutions; whether the person is involved with vocational training or is competitively employed; and, the degree of client participation in the development of the IPP.

The information gathered during the research will be held in the strictest confidence at all times. Client or organization identifiers will not be used in any part of the reports. Attached is a consent for release of information which will allow the researcher to examine the clients' personal file with repsect to the above named factors.

Thank you for your cooperation in assisting me in completing my Masters' in Health Services Administration. If you have any questions please feel free to contact me at 939-5839.

Anne Marie Harris

Appendix E

STAFF ATTITUDE SURVEY

PLEASE RESPOND TO EACH QUESTIONS BY USING A CHECKMARK OR WRITING IN A RESPONSE TO THE FOLLOWING.

1. How long have you been employed within this particular group home or program (eg:ILS)?

-please specify

2. How long have you been employed with this agency?

-please specify

3. What type of education do you have?

1. -some high school but no diploma.
2. -high school graduation
3. -some University but did not complete.
4. -Rehabilitation Practionner Diploma (1 or 2 year)
4. -other, please specify

5. -University Degree (in area other than social sciences)
6. -University Degree (in psychology, social work)

4. You learned how to use the IPP system through (please check all applicable catagories)

a. -formal academic training.

b. -professional development seminars/workshops.

c. -at work through agency training.

d. -reading up on IPPs.

e. -hands on or on the job experiences.

f. -other, please specify

5. For how long has your group-home/program used an IPP system (an IPP system can include GSPs, ISPs etc..)?

-please specify

6. How long (approximately) does it take you to develop the IPP for one client (that is, after the assessment is complete)?

-please specify in hours.

7. In your group-home/program the IPP is actually implemented

a. -one month after the client enters.

b. -six months after the client enters.

c. -one year after the client enters.

d. -when the client enters the program.

e. -other, please specify

8. You use the IPP because (please check all applicable catagories)

a. -it is required by my supervisor

b. -it is required by government.

c. -it is required by the agency administration

d. -all of the above

e. -other, please specify

9. When do you refer to the IPP document? (please check all applicable catagories)

a. -before a case conference.

b. -before I talk to my supervisor.

c. -at month end so I can do my reports.

d. -other, please specify

10. What type of guidance do you receive from your superiors before implementing the IPP?

a. -supervisor reads.

b. -supervisor must approve.

c. -supervisor discusses with me and then gives approval.

d. -supervisor must be involved in the development of the IPP.

e. -none

f. -none from my supervisor but some co-worker input (eg:program worker, group-home or program coordinator.

11. With respect to the adequacy of the IPP system used in my group-home/program I feel that it could be improved by (please check all applicable catagories)

a. -making it shorter

b. -making it longer

c. -changing the format

d. -eliminating the paper work

e. -other, please specify

12. You feel that in developing the IPP (please check all applicable categories)

a. -that it doesn't matter if the client is involved as long as the document is well written and prepared.

b. -that parent involvement is a problem because they usually argue about training methods

c. -that the client should be actively involved in making choices regarding which skills he/she will be learning

d. -that parents/guardians should be actively involved

e. -other, please specify

13. You feel that using the IPP system within your group home or program has

a. a positive effect on assisting clients

b. no effect in training clients

c. a detrimental effect on clients

because

(please specify)

d. other, please specify

14. This space is furnished so that you can provide any other comments with respect to your feeling regarding the IPP system used in your group-home or program.

MEMO TO: Staff

FROM: Anne Marie Harris

RE: my thesis research

As part of my research I need to get your honest opinions with respect to the type of IPP system you are presently utilizing within your programs.

As a result I have developed a questionnaire (attached) which is to be completed and returned to the main office of your organization. All questionnaires are to be submitted anonymously.

Please read each question carefully before responding. Because this is considered to be a confidential document please respond to these questions in terms of your actual and personal feelings regarding each item.

Thank you in advance for your cooperation, if you have any questions please feel free to contact me at 939-5839.

RESPONSES TO STAFF ATTITUDE SURVEY

QUESTION	AGENCY A N=17 TOTAL	A MEAN	B N=8 TOTAL	B MEAN	C N=11 TOTAL	C MEAN
1.	195	11.5	119	14.9	83	7.6
2.	627	36.9	158	19.8	231	21.0
3.	79	4.7	35	4.4	49	4.5
4 a)	4	.29	6	.75	5	.45
b)	9	.53	3	.38	6	.55
c)	13	.76	3	.38	5	.45
d)	9	.53	4	.50	7	.64
e)	13	.76	5	.63	10	.91
f)	0	0	0	0	0	0
5.	690	53.1	72	10.3	129	11.7
6.	121	10.1	18	.36	191	17.4
7 a)	3	.18	3	.38	3	.27
b)	3	.18	1	.13	4	.36
c)	0	0	0	0	0	0
d)	9	.53	3	.38	3	.27
e)	3	.18	1	.13	2	.18
8 a)	9	.53	2	.25	4	.36
b)	3	.18	0	0	1	.09
c)	11	.65	3	.38	5	.45
d)	7	.41	3	.38	6	.55
e)	6	.35	4	.50	5	.45
9 a)	12	.71	6	.75	8	.72
b)	2	.12	2	.25	7	.63
c)	5	.29	4	.50	8	.72
d)	12	.71	4	.50	8	.72
10 a)	12	.71	2	.25	7	.72
b)	14	.82	3	.38	7	.72
c)	9	.53	5	.63	7	.72
d)	9	.53	2	.25	0	0
e)	0	0	0	0	1	.09
f)	4	.24	1	.13	1	.09

STAFF ATTITUDE SURVEY
RESPONSES CONTINUED

QUESTION	AGENCY 1 TOTAL	MEAN	AGENCY 2 TOTAL	MEAN	AGENCY 3 TOTAL	MEAN
11 a)	12	.71	0	0	2	.18
b)	14	.82	0	0	0	0
c)	9	.53	4	.50	5	.45
d)	9	.53	2	.25	3	.27
e)	0	0	2	.25	4	.36
12 a)	0	0	1	.13	0	0
b)	0	0	1	.13	0	0
c)	16	.94	7	.88	11	1.0
d)	14	.82	6	.75	9	.81
e)	7	.41	2	.25	6	.35
13 a)	17	1.0	8	1.0	8	.72
b)	0	0	0	0	1	.09
c)	0	0	0	0	1	.09
d)	0	0	1	.13	4	.36

COMMENTS RE: STAFF ATTITUDE QUESTIONNAIRE

AGENCY A

QUESTION 7. The IPP is actually implemented:

-within 2 months depending on individual needs

-within 3 months, process begins includes assessment which leads to the IPP conference.

-between 3 and 6 months

-after appropriate baseline procedures, reviewing of client history and consultation with previous placements.

QUESTION 8. The IPP is required because:

-it ensures consistency and need priorities

-I feel the IPP system is beneficial to my clients

-it helps to organize the client progress

-it is an efficient way to work with our clients

-it can be a useful tool in developing the skills of clients

-the IPP assists me in providing consitency in service delivery

-it gives me personal satisfaction

-it's the best way to identify needs and ensure continuity of approach

QUESTION 9. The IPP is referred to:

-on an ongoing daily basis; when needed for reference; whenever necessary to review and keep on top of clients' development and make sure objectives are being met; for keyworker meetings, for personal information to clarify program specifics; for updating other professionals involved; prior to and during training sessions; before home visits and regular review times; to confirm necessary information regarding delivery of program.

QUESTION 10. Improvement suggestions:

-make it more concise and consistent. Build in a monitoring system to ensure steps in the IPP are complete within time frames;consult on a regular basis so that all staff are familiar with the goals, objectives and needs of each client; more of a demand for vocational and educational placement involvements; computerize; adding a summary of program review with graph representing yearly progress for each program area; more flexibility to include different systems for outreach program; good system need to improve my skills;more consultation between delivery team regarding delivery, probels arising, improvement and consistency

QUESTION 11. Who should be involved in the development of the IPP:

-vocational and educationsl placements must be actively invovled, and any other agency or person (volunteer); staff consensus on approach is vital; other interested people.

QUESTION 12. The effect of the IPP on the client:

-is positive and ensures consistency withing the program, it also helps the staff in their involvement with the client.

AGENCY B

QUESTION 7. The IPP is implemented:

-2 months after admissions

QUESTION 8. The IPP is required because:

-it is a valuabel teaching tool;aids us and others who will be involved in the clients lives in being updated; gives clear direction for service delivery; currently the most appropriate way of assessing and instructing an individual with consistency.

QUESTION 11. Improvement suggestions:

-clarify short and long term goals; increase the detail in areas such as self help skills.

QUESTION 12. Who should be invovled in the development of the IPP.

-involve all other significant others in person's life; all staff should also be involved

QUESTION 13. The effect of the IPP on the client:

-is positive but also gives guidance to staff and enhances consitency.

AGENCY C

QUESTION 7. The IPP is implemented:

-within 2 months; it varies with my caseload I try to implement them as soon as the assessment is complete.

QUESTION 8. The IPP is required because:

-it is a teaching tool designed specifically for an individual, to teach the individual what sh/she needs to learn, it's a good way of teaching; it's effective; its's beneficial to the development of independent living skills; a good method of training clients and charting their progress; it is the most useful way at present to deliver service to clients.

QUESTION 9. The IPP is refered to:

-prior to visiting the clients, when discussing the IPP with family on the phone, after the client visit to ensure consistency; when dling programs; as needed when referring to programs and strenghts and needs lists; when discussing progress with client and their supports; when client goasl are met or if there is a problem meeting them; on ongoing basis; regulary before each home visit; when client is having problems or when programs are completed.

QUESTION 11. Improvement suggestions:

-establish guidelines as to how and when the process should begin; have standards for the document; systematizing the type of IPP used by different workers within our agency; systematizing the IPP process.

QUESTION 12. Who should be involved in the development of the IPP.

-other supports should also be involved in areas which effect client and them(e.g. time management and voc/educational program punctuality); parents and other support persons; any professional who can add information; interested individuals whom the client wants involved.

QUESTION 13. The effect of the IPP:

-is positive but only works if the client is totally ready to learn and is actively invovled in the entire process from start to finish; when staff reorganizing occurs following through on deadlines often does not therefore using the system can have a detrimental effect on the client; at times the IPP has no effect on the client; is positive becuase it lets the client get involved and it's an easy way for clients to measure successes; has a positive effect although at time we tend to design programs and make client dependent on reinforcers; I think the IPP system is perhaps too rigid for some ILS clients.

Appendix F

Levels of Handicap
Levels of Functioning 1 and 2
Adapted from Social Services Standards

(Scale = Level 0 "normal" to Level 4 "severely disabled")

Categories	Level 2	Level 1
Supervision and Care	Some degree of nursing & medical back-up required, e.g., supervison of drugs protection against common danger.	Minor medical treatments carried out mainly by client
Motor Control	Generally mobile -walks alone but awkward or with cane / gross or fine motor coordination difficulties	General motor may have hand/eye coordination difficulties or some balance problems
Socialization and Communication	Relates well to others in familiar structured setting -communicates in short sentences understands most directions with practice -reads social sight words can write name	Good concrete language but with conceptual difficulties, good conversational skills, reads and writes simple English does simple math
Developmental Skills	self care with some supervision or architectural assists Basic homemaking & vocational skills with practice	self help sufficient. Community residential & vocational skills with practice - needs assistance with budgeting & time management
Behaviour	undesirable behaviour poor motivation	no specific behaviour problems - some inappropriate behaviour evident.

Appendix G

SCORES FOR ITEMS WITHIN THE IPP DOCUMENT

EACH ITEM OR COMPONENT OF THE IPP WILL BE SCORED BASED ON ITS PRESENCE OR ABSENCE WITHIN THE DOCUMENT, THAT IS, IF THE ITEM IS PRESENT ONE POINT WILL BE ASSIGNED (yes or present=1), IF THE ITEM IS ABSENT ZERO POINTS WILL BE ASSIGNED (no or absent=0).

1. Client presence and involvement in the development of IPP.

2. The parent/legal guardian has been involved in the development of the IPP.

3. An interdisciplinary team has been involved in the development of the IPP (that is, at least one professional or concerned person other than the client or guardian is involved)

4. The IPP has been developed based on recent functional assessments (less than one year old).

5. The IPP document has a strengths and needs orientation -a list of the client strengths and needs are included.

6. A written Long term goal is utilized and it is written to specify that in a year or more that certain skill(s) are to be accomplished, in addition the goal identifies the direction for what is to be accomplished (eg: increase, decrease, maintain).

WRITTEN SHORT TERM OBJECTIVES

7.-objectives are written as a description of a general area for training which are intermediate steps that lead to the accomplishment of the long term goal.

8.-decribe the specific target for change.

9. identify success criterion.

ACTION/TEACHING/TREATMENT PLANS.

10. includes a 'to° and °from' statement indicating level of performance and expected level of performance.

11-identifies the method and procedures that staff will utilize in assisting the client to learn.

12.-describes the treatment frequency (time, location)

13.-specifies timelines for completion.

14. The skills being taught are appropriate for the age of the client (eg: involved in recreational activities that encourage use of generic resources rather than segregated services).

15. The skills being taught assist and train the individual for subsequent environments (eg: training specific for assisting the client in moving from a more sheltered group home environment to apartment training or some other more independent environment)

16. A progress (review) report is included which identifies the amount of change or progress has been made.